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WANTED, Improver or Turnover; others kept; hours business 7.30 to 8 p.m. Apply by letter, stating age, reference, and experience, to H. S. Martin, Wholesale and Retail Chemist, East Grinstead, Sussex.

BOY wanted, age about 12 to 14, to assist in packed Drug Department of Wholesale Laboratory. Apply, by letter, stating wages required, and full particulars to W., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

JUNIOR, with Minor qualification, as second Assistant in a good Retail and Dispensing business. State age, height, references, and salary required (indoors), to J. Williams, Pharmaceutical Chemist, Aldershot.

HICKS & CO., Cardiff, have a Vacancy for an Assistant; must have Minor qualification, be a reliable Dispenser, and accustomed to a good-class business; state age, height, salary required (outdoors), and enclose carte.

DENTISTRY.—Wanted, a Pupil, by an L.D.S., holding a Dental Hospital and an Asylum Appointment in Manchester, and within five minutes' walk of Hospital and Dental School. Address, 15 Stretford Road, Manchester.

TRAVELLERS calling on Chemists and Perfumers are wanted to sell on commission a toilet article; wherever this complexion preparation is introduced it sells more freely than any other. Address, Morse & Co., 3 Wood Street, Bath.

AN Indoor Assistant required for Surgeon's small Retail; would suit reading man; time indoors but not for lectures. Personal application if possible any evening after 7 to J. Miller, 1 St. Ann's Road, Royal Crescent, Notting Hill Gate, W.

WANTED, immediately, Junior Assistant, about 18; must be active and energetic, and of agreeable manners. Send full particulars, salary, photo, and references, to J. & J. Thompson & Co. (Limited), 192 Manchester Street, Oldham.

OUTDOOR, immediately, an active, industrious Junior; six assistants kept. Please state age, height, salary (outdoor), and when disengaged, to Jesse Williams & Co., Pharmaceutical Chemists, Park Hall Buildings, Queen Street, Cardiff.

WANTED, at once, steady, trustworthy, and reliable Assistant, or a good Junior or Improver, for Mixed country business with brisk counter trade; must be willing and obliging, and not afraid of work. Full particulars to S. Smith, New Swindon.

THE Standard Malt Extract Company are prepared to appoint a Chemist as Agent in every Town in Great Britain for the sale of their valuable preparations; liberal terms offered. Apply to the Manager, 23 Billiter Street, London, E.C.

WANTED, early in June for a few months, a competent Assistant of good address (indoors); must be a good Dispenser; age about 24. Apply, with photo (to be returned), stating age, height, salary, and reference, to F. Grant, Clevedon, Somerset.

TRAVELLERS wanted to sell Carter's Universal Bird Seed in Liverpool, Birmingham, Newcastle, Bristol, York, and other large centres; must have good connections with first-class Chemists, &c. Apply to B. S., James Carter & Co., 237–8 High Holborn, London, W.C.

TO Parents and Guardians.—A high-class dental surgeon has vacancy for a young gentleman as pupil; an excellent opportunity of securing good future for an intelligent youth; premium 100 guineas. Address, Amybell, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

LABORATORY.—Wanted, a young Chemist who would be able to introduce novelties, &c., and to take charge of small Laboratory of Wholesale House in London. Apply, stating age, wages required, &c., to "Laboratory," Office of THE CHEMIST AND DRUGGIST, 42 Cannon St., E.C.

WANTED, a qualified Assistant of good address in a country Dispensing business where there are several assistants. Apply, stating previous experience, salary required (indoor), and references, to "Chemicus," Messrs. Wm. Edwards & Sons, 157 Queen Victoria Street, London.

WANTED, pushing and obliging Junior or Improver for Drug and Stationery business; no previous knowledge of stationery required; ample time allowed and assistance given to one commencing to read for Minor; abstainer; indoors. References and particulars to Messrs. Clegg, Wantage, Berks.

JUNIOR Assistant, for general Retail business. Apply by letter giving usual particulars and salary required, to T. E. Scoley, 51 Lambeth Walk, S.E.

FOR about six months, qualified Assistant of good address; about 24; indoors. Photo, height, salary, &c., to B. Whitrow, 15 St. John's Road, Tunbridge Wells.

PILL-MAKER.—Wanted, to correspond with a man thoroughly acquainted with sugar and pearl coating. Apply, C. H. Smith, Hargreaves Street, Red Bank, Manchester.

QUALIFIED Assistant, immediately; a good salary and comfortable home to a suitable man. State full particulars, and enclose photo, to F. R. Jennings, Chemist, Maidstone.

WANTED, a Junior, aged not under 21; indoor; several kept; must be a good Dispenser. Address, giving full particulars, "Alpha," care of Mr. John Thompson, Hanover Street, Liverpool.

A QUALIFIED Assistant for a light Retail and Prescribing business; married, enclose carte (to be returned), with full particulars and salary required, to W. D., 45 Berkley Street, Liverpool.

IMMEDIATELY, Assistant with Minor qualification; age about 22; used to country retail, and competent to take charge. Apply, with full particulars, to Mr. Wilson, 281 Essex Road, London, N.

WANTED, an Assistant, Qualified, for a country business; must be a good counter hand, and have good references. Apply, stating age, salary, and enclose photo, to Messrs. Sandford & Co., Agricultural Chemists, 21 Market Place, Spalding.

QUALIFIED Dispenser: indoors; thoroughly competent to take charge of this department. Apply, stating experience, salary, &c., to J. H. Lewis' Drug Stores, 22 and 24 Great Portland Street, W.; also Junior wanted, for stock and counter.

QUALIFIED ASSISTANT for retail and to assist occasionally at dispensing counter; easy hours; no night or Sunday duty. Apply, personally if possible, or by letter with full particulars, to the Chemist, Harrod's Stores, Lim., 101, 103, 105 Brompton Road.

AT ONCE, Qualified Assistant to take Management of Branch in a small agricultural town; one used to a Mixed Country Trade, and married, preferred. Apply, with full particulars, to "Chemicus," care of Messrs. Davy, Yates & Co., 64 Park Street, Southwark.

WANTED, qualified Assistant; must be trustworthy and prepared to invest in the concern at least £100, for which good interest and security will be given; first-class opportunity for a suitable person. "Xylo," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

QUALIFIED Assistant wanted, for the Transvaal; must have first-class experience; age under 30; salary £18 per month first year, £20 second year, £22 third year; 3 years' agreement; second-class passage paid out. Address, with full particulars, to W. J. B., Messrs. Street, 30 Cornhill.

TRAVELLERS, representing first-class Wholesale Houses wanted, to to take up an extra commission; must have good connection among Chemists; replies, which must contain full particulars, treated confidentially. T. H. C., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

TRAVELLER for West of England.—A profitable additional commission is offered to a gentleman by a London manufacturer of fancy soaps and perfumery; must have good connection amongst Chemists, &c. 71/36, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

TRAVELLER wanted for Drysaltery firm for Manchester and district; an energetic pushing young man with connection preferred; state experience, salary expected, references, and full particulars in strict confidence; security required. Address, A., 1 Robert Street, Cheetham, Manchester.

WANTED, competent Assistant, of good address, for high-class business; must be a good Dispenser, and one with knowledge of Homœopathy and Store trading preferred. Apply, stating age, height, references, if qualified, salary, &c., enclosing carte, to E. J. Bishop, Chemist, Folkestone.

WANTED, a qualified Dispenser and Extractor to take charge of a Chemist's shop in the suburbs; board and lodging found; a Christian gathered out to the name of the Lord desired. Write, stating age, experience, and salary required, to H 7, care of Tetley & Co., Fenchurch Street, E.C.

WANTED immediately, good Junior for a few months as relief during holidays; will probably be retained permanently if suitable; state when disengaged, experience, last two references, salary (indoors), &c.; work light, hours short; applications not answered within three days respectfully declined. Apply, Smith, 5 Norman Road, St. Leonard's-on-Sea.

SOLUBLE Essences for Aërated Water Makers.—The services of an Expert required, accustomed to modern processes on large scale; established firm want temporary or permanent assistance; if preferred, a pecuniary interest in the business might be arranged. Address in confidence, V. P., Office of THE CHEMIST AND DRUGGIST, 42 Cannon St., E.C.

CHORLTON UNION.—Dispenser.—Wanted, a Dispenser at the Hospitals of the Workhouse, Withington, near Manchester; salary £50 per annum, with board and residence; applicants must hold the certificate of the Pharmaceutical Society. Applications, stating age and previous experience, and accompanied by copies only of three recent testimonials, must reach me not later than Thursday, the 15th day of May instant, endorsed "Dispenser." By order, W. N. EDGILL, Clerk to the Guardians.

Union Offices, All Saints', Manchester, May 2, 1890.

JUNIOR, Improver, or Turnover, for three months certain, probably longer; outdoors; no heavy work; hours easy; every evening free, with few exceptions; no Sunday duty. Apply, with full particulars, stating salary required, to W. C. Smith, Chemist and Mineral Water Maker, Titchfield, Hants.

WANTED, Junior Assistant; good counterman and dispenser; Protestant and abstainer preferred; hours 8 to 8.30 Saturday 10.30; no Sunday duty; unexceptionable references required. Apply, with photo (to be returned), stating age, height, and usual particulars, to J. B., 10 Albert Road, Widnes, Lancashire.

CHEMIST'S Manager wanted immediately, for the Isle of Man; abstainer preferred; must be a good Counterman, and had good experience, with first-class references. State age, height, experience, if married, and salary required (outdoors), also send photo. to "Cornus," care of Messrs. Evans, Sons & Co., Hanover Street, Liverpool.

PROVINCIAL firm require Working Manager who thoroughly understands preparing and making up of essential oils, fruit and soluble essences, and other ingredients as used by mineral water manufacturers; one who has held similar position preferred. Give full particulars, wages expected, &c. in strictest confidence, "Essences," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

TOWN Traveller wanted to represent a leading Wholesale Druggist's Sundries and Patent Medicine house: must be well acquainted with the trade, and have a connection amongst Chemists in the West and South districts of London and suburbs. Apply, by letter, stating age previous experience, and full particulars as to commission required, to "Alpha," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

TRAVELLERS wanted for disinfectants, carbalic acid, sheep dip, &c., one for each of the following grounds:—(1) Eastern Counties, Oxford, and Northamptonshire; (2) Wales; (3) East Coast and Newcastle district; (4) Lancaster, Cumberland, and Westmoreland: gentlemen with suitable connections covering any of the above districts for another house would be offered a liberal commission. "Disinfectants," Chas. Taylor & Co.'s Advertisement Offices, 154 to 157 Fleet Street, E.C.

SITUATIONS WANTED.

1s. for twelve words; 6d. for every six words beyond.

AS Junior; 4 years' experience; aged 20. A. P., 33 Castle Street, Salisbury.

JUNIOR; aged 22; good reference. "June," 110 Amersham Vale, New Cross, S.E.

IMMEDIATELY; outdoor or temporary; experienced; reliable. Lea, 158 Holloway Road, London, N.

TEMPORARY; qualified; good experience; disengaged. F., 31 St. James' Square, Holland Park, W.

JUNIOR: aged 20; 5 years' experience; good references; outdoors; London. H. 7 Jelf Road, Brixton, S.E.

JUNIOR (21); good dispensing experience; part-time; Manchester or Edinburgh preferred. Challis, Carlisle.

DISPENSER (24) desires engagement, Chemist or Surgeon; experienced. C. S., 35 Bath Street, Birmingham.

ASSISTANT; time for study; 23; disengaged early in June; London or suburbs. H., 2 Tottenham Court Road, W.

JUNIOR, aged 21: 4½ years' country experience; Western counties preferred. Hill Beer ston, Roborough, Devon.

MANAGER or Assistant; temporary or permanent; satisfactory references. Loder, Llanbadarn House, Sudbury.

IMPROVER (20) for end of month; good reference; abstainer; outdoors preferred. F., Mr. Smith, Market Place, Dereham.

AS Junior (indoor); 4 years' good experience; good references; height 5 ft. 9 in. Griffiths, 1 Broad Street, Pendleton, Manchester.

ADVERTISER wishes for an Engagement with Chemist or Surgeon; age 30; single. "Sigma," care of Mr. Rolls, Sherborne, Dorset.

JUNIOR (20½); Dispense, Prescribe, and Extract: 5 years' experience; Yorks or Lancs. preferred. Leo Ellisson, Stocksbridge, Sheffield.

ASSISTANT (24) mixed business; knowledge of grocery: 9 years' experience; country preferred. Evans, Post Office, New Swindon.

WHOLESALE.—An experienced man requires situation in Wet or Dry Department; highest references. J. W. B., Darley Street, Leicester.

ASSISTANT (20); tall; 5 years' Dispensing and good family experience; London or Southern counties. Walden, Fairfax Place, Dartmouth.

LONDON.—Assistant, qualified, desires engagement, with evening or two off weekly, to attend class for Major. "Chemist," 31 Ella Street, Leeds.

OUTDOOR Assistant or Branch Manager, with view to succession; competent; qualified; experienced; aged 28. "Minor," 9 Calabria Road, Highbury.

MANAGER, Senior, or Locum-Tenens by Qualified Chemist and Registered Surgeon-Dentist; good Prescriber and Dispenser; moderate salary accepted for a permanency; country preferred; would not object to go abroad. R. D. S., Brinkburn House, Llandudno.

TEMPORARY; town and country experience: reliable; undeniable references; registered; now disengaged. "Chemist," 159 Copenhagen Street, London, N.

MR. S. SMITH, 6 Shaftesbury Terrace, Ashley Road, Bristol, takes Confidential Management during absence or illness; varied experience; disengaged for June.

ADVERTISER desires Situation as Traveller; 5 years in trade; no experience: town. "Traveller," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

TRAVELLER (Town and Suburbs); a gentleman, who has been calling on Chemists, is desirous of representing a good Drug House. "Pharmapos," 131 Temple Chambers.

FRENCH Assistant, aged 24, good experience and excellent references, desires situation; understands a little English. J. Cattelain, 53 Charlotte Street, Fitzroy Square, London.

AS Town Traveller, to represent a good Drug or Sundries House; no previous experience; accept small salary or commission to start with. Address, C., 31 Granville Square, W.C.

MANAGER of Branch, or outdoor; Senior, thoroughly experienced; qualified by examination; London or suburbs preferred; good references. "Zymine," Mr. Sunley, 237 Goswell Road.

PHARMACEUTICAL Chemist (widower) is open for appointment; outdoor; 20 years' experience in business; unexceptionable references. Address, P. C., 41 Rigault Road, Fulham, S.W.

MANAGER, &c. A gentleman, thoroughly experienced, is open for engagement with a first-class wholesale perfumery house; unexceptionable references. T., 29 Upper Square Islington, London, N.

WANTED, by a Qualified Pharmaceutical Chemist, a responsible position in a good house or first-class stores; first-class experience in leading London Houses; aged 23; good references. Apply, 999, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

TO Manufacturing Chemists at home or abroad.—A specialist in Agricultural, Pharmaceutical, and other preparations, disinfectants, soluble essences, &c., trained Chemist and Analyst, will be open for engagement shortly. Apply, A 1367, Office of THE CHEMIST AND DRUGGIST 42 Cannon Street, E.C.

A SWISS, tall, of good constitution, leaving an English Pharmacy, neighbourhood of Nizza, thoroughly qualified and experienced, with first-class testimonials, knowing French and German, is open for a situation to a Chemist and Druggist in England; photograph and copies of testimonials at disposal. Apply, "Aristos," 23 Stockerstrasse, Zurich, Switzerland.

MISCELLANEOUS.

LAMPLOUGH & CO.—A few Shares (£3 paid) for Sale, at £3 10s. 58/90, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

PROPRIETARY Articles.—Wanted to Purchase. Must show good profits. Apply, by letter, to J. S., care of Mr. Ponting, 40 Aldersgate Street, London, E.C.

THE Improved Sanitary and Antiseptic Respirator. Light, cool, washable. Can be supplied in black, white, or flesh-coloured silk or fine wool, closely knitted to usual shape, and enclosing a plate and tissue for use of antiseptic agent when required. Manufactured and sold by B. Dranfield & Co., 4 Corporation Oak, Nottingham.

ALFRED HOLT & CO., Oil, Drug, and Chemical Brokers, 19 Oldhall Street, Liverpool, offer the finest new season's non-freezing Cod-liver oil that can be obtained at any price, at 2s. 9d. per gallon in 25-gallon barrels; can be sent direct from Norway, carriage paid, if desired. Extra super Messina Essence of Lemon, 4s. 3d. per lb.

PRELIMINARY AND MINOR.

ALL Students who are preparing should send for particulars of a method of study which will enable them to pass with ease. Enclose stamped envelope to Mr. J. Tully (Hills Prizeman), Chemist, Hastings. Established 1872. References to past and present Pupils. Student's Herbarium, 100 specimens, 7s. 6d., post free.

STUDENTS' AIDS TO EXAMINATION.

PRELIMINARY.—Arithmetic and Metric System, 1s. How to Write an Essay, 3d. Cæsar Simplified, 1s. Knotty Points in Latin Grammar, 1s. 6d. MINOR.—Equations Simplified, 1s. Illegible Autographic Prescriptions, 1s. Notes on Dispensing, 1s. Prescriptions given at the Minor, 6d. "Chemist," care of Mr. J. Edwards, Wye, Kent.

Printed by SPOTTISWOODE & CO., New-street Square; and Published at the Office, 42 Cannon Street, in the City of London.—*May* 10, 1890.

EXCLUSIVELY OBTAINED FROM

"PUMILINE."

THE SNOW-GROWN PINUS PUMILIO.

"PUMILINE" ESSENCE

Is a specially prepared volatile essence, distilled from a particular variety of pine, growing nearest the snow level on the Alps. It possesses exceptional medicinal properties when given internally, or in the form of inhalations, in the treatment of Pulmonary and **Diathetic Affections**, such as **Phthisis, Rheumatism, Gout, &c.** It is a valuable deodorizer and disinfectant, and has a peculiarly refreshing and fragrant odour.

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For **Sore Throat, Cough, Hoarseness, &c.**, they give immediate relief.

"PUMILINE" LINIMENT

Specially beneficial for use in Chronic **Rheumatism, Gout, Lumbago, Sciatica, &c.** It is also invaluable for **Throat** and **Chest Affections**, and may be *taken internally, in doses of 2 to 5 drops.*

"PUMILINE" PLASTER

Is most effective in **Chronic** and **Muscular Rheumatism, Lumbago, Sciatica,** and also for **Chest Affections.**

"PUMILINE" EXTRACT

For **Gout, Rheumatism,** and **Skin Disease**; used in BATHS, **Ointments,** and **Liniments.**

"PUMILINE" OINTMENT

For all **Skin Affections, Irritations, Insect Bites Burns, &c.** This Ointment is a fine smooth homogeneous application. It gives immediate relief in the intolerable itching of **Eczema,** &c. It is unrivalled both as a medicinal agent and toilet requisite.

"PUMILINE" SOAP

Is a carefully neutralised **superfatted** Soap, containing no free alkali, and is a **Lubricant** instead of a **Desiccant** to the skin. It is peculiarly adapted for use to the delicate skin of ladies and children. It leaves the skin smooth and satiny, and beautifies the complexion. The "Pumiline Essence which it contains makes it a powerful disinfectant.

"PUMILINE" DRY INHALER

Most effective and convenient pocket inhaler for use in Throat or Lung Troubles. Is invaluable for use during a fog or mist.

G. & G. STERN have so arranged their Price List that a *very large margin of profit* is left to Chemists and to the Trade generally. In consideration of this, as well as the fact *that no other* Pine Preparations are in any way equal to "PUMILINE," Chemists will find it much to their advantage to stock the "Pumiline" Preparations.

PRICES—

	RETAIL	WHOLESALE.
"PUMILINE" ESSENCE	1/6 and 2/6 per bottle	15/ and 24/ per dozen.
"PUMILINE" EXTRACT	1/ per bottle	9/ per dozen.
"PUMILINE" JUJUBES	1/1½ and 2/3 per box	10/6 and 20/ per dozen
"PUMILINE" OINTMENT	1/1½ and 2/9 per pot	11/ and 27/ per dozen.
"PUMILINE" LINIMENT	1/1½ and 2/9 per bottle	11/ and 27/ per dozen
"PUMILINE" SOAP...(box of 3 cakes)	1/6 and 9*d.*, and 1/ per tablet	15/, 7/6, and 9/ per dozen.
"PUMILINE" PLASTER	1/1½ each	9/ per dozen.
"PUMILINE" DRY INHALER	1/6 each	14/ per dozen.

BESIDES WHICH *AN ADDITIONAL DISCOUNT* IS ALLOWED TO CHEMISTS AND THE TRADE.

G. & G. STERN, 62 Gray's Inn Road, LONDON, W.C.

Will send Show Cards and Literature Free on Application.

EXCHANGE COLUMN.

This section of "The Chemist and Druggist" must be closed for press by Thursday noon of each week. Remittances payable to EDWARD HALSE.

TERMS.

Advertisements in this department must be paid for in advance. From this rule no deviation can be made. Insertions are charged at the rate of ½d. per word, provided the advertiser attaches his name and address, for each word of which he must also pay at the same rate; or if he pays 1d. per word, his name and address will be registered and a figure attached to his advertisement. All correspondence referring to that figure must be addressed to "The Publisher of The Chemist and Druggist, 42 Cannon Street, E.C.," and the figure must be distinctly endorsed upon the envelope. Letters will then be forwarded to their proper destination. A price is counted as one word, as *e.g.*, £1 10*s.* 6*d.*

FOR DISPOSAL

Proprietary Articles.

One dozen 13½ Freeman's chlorodyne, quite clean; what offers? Willis, Chemist, Stockport.

Dobson's black leg drinks, six 3*s.* packets and three 5*s.* 6*d.* packets, 15*s.*; in stock less than three months. Allsworth, Bromley, Kent.

Educational.

"British Pharmacopœis," 1867; Squire's "Companion," 10th edition; Pereira's "Manual"; Fowne's "Chemistry"; Martindale's "Extra Pharmacopœia," 3rd edition; Pereira's "Selecta." Rainey, Spilsby.

Druitt's "Surgeon's Vade Mecum," 16*s.*; last edition, edited by Dr. Stanley Boyd, 10*s.* Carter's "Elements of Medicine," 9*s.*; 4th edition, 5*s.* 6*d.* Roscoe's "Chemistry," 4*s.* 6*d.*; 1886, 3*s.* Ringer's "Therapeutics," 15*s.*; 9th edition, 9*s.* "Chemist," The Crescent, West Kirby.

Formulæ.

Reliable recipes, 6*d.* each; full set of 130 neatly copied in book, 7*s.* 6*d.*; send for list. "Chemist," Edwards, Wye, Kent.

Sweet Solid Perfume, most enchanting, delicious bouquet; will last for years; 2*d.* blocks; half profit; over 50 sold (retail) in two days; sells itself; quickly and easily made; recipe, with full instructions, 2*s.* 6*d.*; sample dozen free 1*s.* 6*d.*, or recipe and sample dozen free 3*s.* 6*d.* Tom Brooks, Chemist, Hornsey, N.

Sanitary Furniture Cream; produces, with little labour, brilliant lasting polish, costs 4*d.* per lb., no better made; Corn Cure, worth trying when others fail, perfectly safe; Ringworm Specific, never fails, cures under four days; White Oils, inseparable, inexpensive, equal any sold; Tic Specific, magic cure, instant action, very reliable; recipes, with instructions, post free 7*d.* each, 3 for 1*s.* 6*d.*; list of 400 free. Tom Brooks, Chemist, Hornsey, N.

Shop Fittings.

Entire fittings and stock of a chemist's shop, including carboys, shop-bottles, cases, drugs, patents, utensils, homœopathics, and sundries; send stamp for particulars of requirements; will be sold in lots to suit purchasers. Lakeman, Chemist, Leytonstone.

Entire mahogany fittings in thoroughly good condition, with bottles, jars, carboys, &c., for shop 19 feet × 12 feet Wyatt, Bootle, Liverpool.

Counter-cases, bent plate-glass, as Maw's A 18, measuring 5 feet and 6 feet long, prices 95*s.* and 110*s.* Philip Josephs, 54 Old Street, Goswell Road, London, E.C.

Shop rounds, 300 second-hand, 7*s.* 6*d.* per doz.; black store bottles, 1*s.* each; lot of blue and white ointment-jars, from 6*d.* to 1*s.* 6*d.* each; tooth-brush case, 20*s.*; specie jar, large size, 50*s.*; and lots of odds and ends cheap. Philip Josephs, 54 Old Street, Goswell Road, London, E.C.

Drawers, 24-foot run of mahogany, fronted with glass labels and glass knobs in different lengths, price 16*l.* the lot, or would divide. Philip Josephs, 54 Old Street, Goswell Road, London, E.C.

Glass knobs for drawers, 24 doz., price 60*s.* the lot, or 2*s.* 9*d.* per doz. Philip Josephs, 54 Old Street, Goswell Road, London, E.C.

Counter show-case, ebonised, plate-glass, as Maw, fig. A 2, silvered glass back to open, 4 movable trays, 58 inches long, 23 inches wide, 8 inches high back, 4 front, 55*s.* or offers. Parke's, 196 Belsize Road, Kilburn.

Glass bottles, job lines.—About 50 gross 3-oz. pale green bottles for corks, suitable for pomade, vaseline, or furniture cream, 4*s.* per gross; 3 gross ½-pint (reputed) green glass syrups, 7*s.*; 2 gross pint ditto, 15*s.*; 3 gross 1-pint white glass syrups, 20*s.*; 3 gross 2-oz. white globe-necked panels, 7*s.* Hearn, Bottle Works, 381 Kingsland Road, London.

Chemists, observe!—Shop-rounds, new hand made, English, stoppering warranted, 10 oz., 4*s.* 6*d.*; 20 oz., 5*s.* 9*d.*; 32 oz., 7*s.*; 40 oz., 8*s.* per dozen, wide or narrow mouth; gold-labelling, best style, any name, 2*s.* 6*d.* per dozen extra; shop-jars, dome or canopy, very cheap; pill-machines, best quality, 5-grain, for 24, 15*s.* 6*d.*; also shop-fittings; state wants. "Drug," 20 Newland Street, Shelton, Stoke-on-Trent.

Miscellaneous.

Job lots of mineral water and other bottles; 100 gross split lemons; 50 gross 10-oz. square dark coffee extracts; 30 gross cherry brandy quarts; what offers to clear? 24/90.

50 composition mortars and pestles, all sizes, at half the usual list prices. Insull, Hanley.

Large number of dental forceps, stopping and scaling instruments, in good condition. Raspberry vinegar, 5*s.* per gallon; sample 2 stamps. 73/26.

Dozen 8 and 10 inch palette-knives, 10*s.* 6*d.*; dozen 6*d.* puffs, 2*s.* 6*d.*; gross black tests, 5*s.*; all best quality. Slater, Chemist, Beeston Hill, Leeds.

Pickering's harness, furniture, brass polish plate powder, half retail price; dozen tooth-brushes, 4*s.* 9*d.*, cost 6*s.* 9*d.*; quantity hair-brushes, cheap. Slater, Beeston Hill, Leeds.

The words "Pharmaceutical Chemist" engraved on plate-glass, written black, embossed gold, burnt in, perfect condition, size 10 feet long, 11½ inches wide; also two figs. 2 to match, size 16 × 11½ inches, each 25*s.*, or offer the lot. Parkes & Co., 196 Belsize Road, Kilburn.

WANTED.

Good formulæ for English and American writing-inks. Send terms to 71/23.

Good dictionary of medical terms. Lowest price to Morris, 373 High Street, Cheltenham.

Formulæ of good toilet specialities. Particulars to W. Lewis, 7 Bishop's Road, London, W.

Pessary mould, good condition; state lowest price. Walker, 94 Harrow Road, Paddington

Fittings of chemist's shop, also 2-grain pill-machine; must be cheap. Pearson, Cogan, Cardiff.

The *Chemists' and Druggists' Diary*, 1890. State price to 43/69, Office of The Chemist and Druggist, 42 Cannon Street, E.C.

Two copies of the "Art of Pharmacy," published by *Chemist and Druggist*. Send offers to Kirkland & Co., 4 Northumberland Street, Strand, W.C.

A large second-hand safe; state maker's name, and price; also second-hand counter-cases, one 28 × 23 × 8 inches, as Maw's fig. A 13, and one as fig. 17; state sizes and price; also a exact pair of swan-neck carboys, as Maw's fig. 2, exchange for one fig. 1 and cash. Lawrence, Chemist, Peel, Isle of Man.

Address Wanted.

Madame or Miss Gilbert, dresses as a mother-superior, buys lavender water, Colgate's soap, &c. Morrison, Chemist, Osnaburgh Street, N.W.

TRADE WITH THE UNITED STATES AND CANADA.

Those who do business with the Drug and Chemical Trades of these important sources of custom will have an opportunity of directly appealing to the best firms through

"THE CHEMIST AND DRUGGIST" OF MAY 24, 1890,

which will be specially circulated on that occasion. Advertisers are requested to apply for space, on an early date, to

THE PUBLISHER OF "THE CHEMIST AND DRUGGIST," 42 CANNON STREET, LONDON, E.C.

JOHNSON & JOHNSON

NEW YORK and LONDON,

MANUFACTURING CHEMISTS,

MANUFACTURERS OF ALL VARIETIES OF

MEDICINAL AND SURGICAL PLASTERS IN RUBBER COMBINATION

(PERFORATED AND PLAIN), AND ISINGLASS AND MUSTARD PLASTERS.

ALSO MOIST ANTISEPTIC DRESSINGS & ABSORBENTS.

MUSTARD PLASTERS.

We are now preparing Mustard Plasters after an entirely New Process.

Mustard Plasters have always given some trouble to both Physician and Pharmacist, by reason of decomposition from age, thus becoming inert. After years of careful manipulation we have been able to overcome this difficulty, and the Mustard Plasters prepared by us are guaranteed in every way.

ON APPLICATION WE WILL MAIL TO ANY CHEMIST'S ADDRESS A SAMPLE OF OUR

NEW PROCESS MUSTARD PLASTER,

A comparison of which with any other brand will show them to be much superior.

THEY WILL KEEP BETTER.

THEY WILL GIVE BETTER SATISFACTION TO YOUR CUSTOMERS.

THEY ARE STRONGER THAN ANY OTHER MAKE.

IMPROVED

BELLADONNA PLASTERS

(WITH BORACIC ACID).

INCREASED ACTION.

We have succeeded in greatly increasing the therapeutic value of Belladonna Plasters.

FIRST.—By preparing the mass in a manner calculated to promote a more rapid absorption of the incorporated drug.

SECOND.—By employing a more reliable extract of the drug than is commonly used.

THIRD.—By the addition of Boracic Acid and a mild rubefacient, by which the activity of the cutaneous glands is stimulated, and their power of absorption increased.

Samples to any Physician's or Chemist's address on application.

ABSORBENT COTTON IN EVEN SHEETS

Rolled with Tissue Paper between them to prevent felting.

Cotton in this form is as easily applicable as an ordinary cloth bandage. Its advantages can be seen at a glance. Supplied in all sized Packets from 1 oz. to 1 pound.

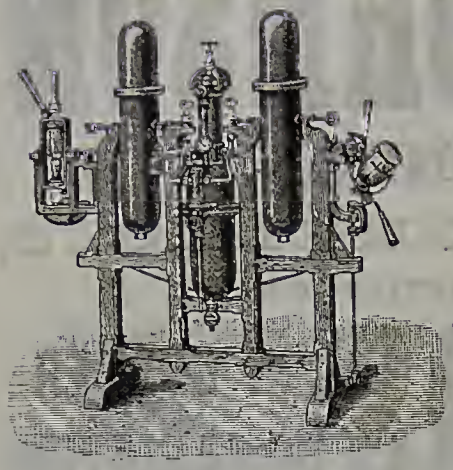
Our goods can be obtained from all the leading Wholesale Houses in Great Britain and Ireland, or from us direct.

PRICE LISTS AND ALL INFORMATION ON APPLICATION TO

JOHNSON & JOHNSON, LIM., 1 & 2 AUSTRALIAN AVENUE, E.C.

When ordering through the Wholesale Houses care should be taken to specify the goods of JOHNSON & JOHNSON'S Manufacture.

A. LOZÉ & CO., LD., 281 WEST DERBY ROAD LIVERPOOL.



INDISPENSABLE TO CHEMISTS.

THE ONLY PRACTICAL SODA WATER MACHINE.

Self-working by Chemical Action. No Skilled Labour.

NOT LIABLE TO GET OUT OF ORDER OR NEED REPAIRS.

Produces the Purest Aërated Water made.

Machines, in two sizes, at 25 guineas and 30 guineas. All complete. With the smaller a lad can make easily in ten hours twenty dozen Syphons or 100 dozen Bottles; with the larger, thirty dozen Syphons or 175 dozen bottles.

County Laboratory, 30 Brownlow Street, Liverpool, October, 1889.

I have examined during the present year the Machines for making Aërated Waters invented by Mr. Lozé, and I have formed a very high opinion of them. No lead is found in any part which comes in contact with the water, and the process is one which produces absolutely pure Carbonic Gas. Accordingly I find that the effervescing water produced is free from every injurious metal or contamination, and has a better flavour than that produced in the ordinary way. J. CAMPBELL BROWN, D.Sc.

Chemical Laboratory, 20 Albert Gate, Manchester, 21st August, 1889.

Gentlemen,—At your request I have visited the works of Messrs. A. Lozé & Co., of Prescot Street and Tuebrook, Liverpool. I have inspected his patented Apparatus for producing Aërated Waters, and have analysed the Aërated drinks manufactured. The results of analysis quite justified the inferences which were drawn from a knowledge of the materials used. Thus, instead of using ordinary whiting (as the source of carbonic acid gas), which gives off small quantities of offensive gases when acted upon with acid, Mr. Lozé uses one of the pure soluble bicarbonates of either Potash or Soda; the use of this salt enables the apparatus to be much simplified in form, as no gas washer is required, but the carbonic acid gas may be led at once into the liquid in the Saturating Cylinders. The Aërated drinks produced are of very high quality, both as to purity and as to Aëration, and the apparatus possesses the merit of extreme simplicity and efficiency.—Faithfully yours, C. ESTOURT, F.I.C., F.I.

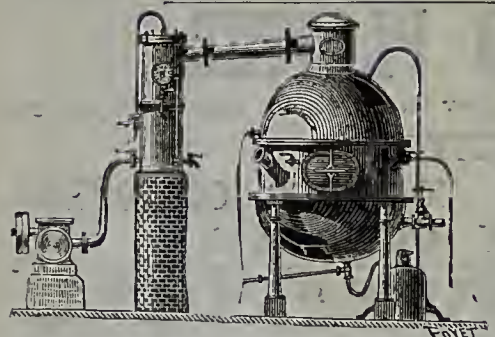
Messrs. A. Lozé, & Co., Limited. Ditton, 10th April, 1890.

Dear Mr. Lozé,—I am pleased to inform you that I have been able to work the Machine sold to me by you without previous knowledge. With your patent Turnover I can bottle Patent Stoppers at the rate of two dozen per minute. Syphons and Corked Bottles I can fill much quicker than what you advertise the Machine to do.

The Aërated Waters produced have been sampled by a number of gentlemen, and pronounced by them to be of a most excellent quality.—Wishing you every success, I remain, yours truly, ROBT. J. GOW, F.C.S.

APPARATUS for DISTILLING & CONCENTRATING in VACUUM

EGROT & GENEVOIX'S SYSTEM, PATENT.



Egrot & Genevoix Apparatus.

STILLS & PANS FOR CHEMISTS, DRUGGISTS, &c.

RECTIFYING APPARATUS

Egrot's System, Patent,

FOR BENZOLE, ETC.

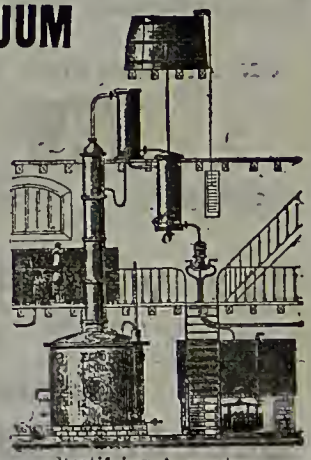
EGROT, Chevalier of the Legion of Honour, MANUFACTURING ENGINEER,

19, 21 & 23 RUE MATHIS, PARIS.

Firm founded 1780.

PARIS EXHIBITION, 1889—Beyond Competition as Member of Jury.

PRICE LIST FREE.



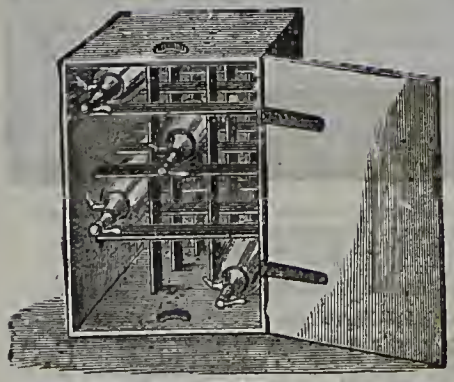
Rectifying Apparatus.

JOHN OWEN, JUNIOR,

PACKING CASE MANUFACTORY AND STEAM SAW MILLS.

ESTABLISHED 1840.

37 & 38 MINORIES, LONDON, E.C.



MANUFACTURER OF

Cases of every description for Home use and Exportation.

Wine Laths, Oak and Deal.

Mineral Water Bin Cases and Trays.

Bottle Crates. Straw Envelopes.

Cases Lined with Tin, Zinc, Copper, &c.;

Also Manufacturers of the

"Acme" Incubator & Poultry Appliances.

PRICE LISTS FORWARDED ON APPLICATION. *EXPORT ORDERS RECEIVE SPECIAL ATTENTION.*

BARNETT & FOSTER,

"Niagara Works," 26T EAGLE WHARF ROAD, LONDON, N.,

Manufacturers of every Appliance for the

MINERAL WATER TRADE.

(The cylinder containing water, and the vessel containing the gas, are placed under the counter, and connected by piping to the Fountain on the Counter.)

LIQUEFIED (SO-CALLED NATURAL) CARBONIC ACID GAS

FOR USE WITH

COUNTER FOUNTAINS or SODA WATER MACHINES,

FOR FILLING BOTTLES & SYPHONS.

With the **COUNTER FOUNTAIN** as shown, we draw direct into the Glass Tumbler, thus avoiding the loss of time occupied in first filling a bottle, and then emptying into the Tumbler, and also the loss of gas in the double operation.

The Gas is supplied in a steel vessel, at a cost of 10*s*., and a charge is made for the vessel, which is allowed for in full on return.

There is sufficient Carbonic Acid Gas for supplying 3,000 draughts of Soda Water.

SPECIAL MACHINERY AND BOTTLING APPLIANCES

For the manufacture of Mineral Waters as a Business (using the Liquefied Gas) are manufactured by us.

All information, with Catalogue, can be had upon application to above.

The System is on view, and all information given, at the

ROYAL MILITARY EXHIBITION, CHELSEA.

KINMOND'S

Royal Leamington

APNEUMATIC

TABLE WATERS

Were first supplied to H.M. the Queen in 1856, and to H.R.H. the Prince of Wales in 1862.

KINMOND'S

GINGER ALE,

AND ALL THEIR OTHER WATERS,
Are UNRIVALLED for PURITY and QUALITY.

In Ordinary Bottles and Syphons.

MANUFACTORY—

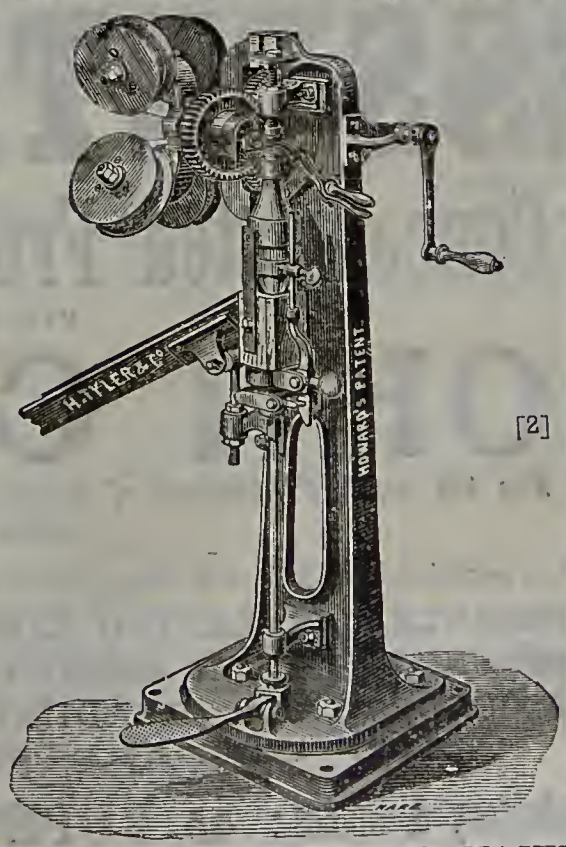
LEAMINGTON.

Send for Trade List and Compare Prices.

HAYWARD TYLER & CO.

WHITECROSS STREET, LONDON.

4 GOLD MEDALS Awarded



for AERATED WATER MACHINERY.

[2]

HOWARD'S PATENT WIRING MACHINE.

JEWSBURY & BROWN'S
(MANCHESTER)

SPARKLING TABLE WATERS,
UNRIVALLED FOR PURITY AND QUALITY.

SODA WATER.
SELTZER WATER.
POTASH WATER.
LITHIA WATER.
SIMPLE AËRATED WATER.

LEMONADE.
GINGER ALE.
QUININE TONIC.
GINGER BEER.
HOREHOUND BEER

EXTRACTS FROM ANALYTICAL REPORTS.

"The examination of the Waters which I have made has satisfied me that they have been prepared with the greatest care, and are of excellent quality."
FRANCIS JONES, F.R.S.E., F.C.S.

"On the whole, I have no hesitation in stating that your Aërated Waters are of the highest standard of purity which is practically attainable."
LOUIS SIEBOLD, F.I.C., F.C.S.

"The Lemonade is, for flavour and general excellence, superior to any similar compound which I have examined, and contains no acid but *Citric Acid*."

"I took a sample of the water used in your manufactory, in the preparation of the Aërated Waters, and found it, as was the case with the completed compounds entirely *free* from lead, copper, or *any injurious* matter whatever."
C. ESTCOURT, F.C.S., F.C.I.

J. & B.'s Syphons are mounted with PURE BLOCK TIN, thus ensuring absolute immunity from dangerous metallic contamination

CARRIAGE PAID AND ON RETURNS.

113 MARKET STREET, and 44 DOWNING STREET, MANCHESTER.

"PREMIER BRAND"

ESSENTIAL OILS.

Concentrated Fruit Essences—Soluble

MANUFACTURED BY

JOHN CUMMOCK

Who has received Hundreds of Unsolicited Testimonials, also THREE GOLD MEDALS, besides other Honours.

Chemists manufacturing their own Aërated Drinks should write for Prices and Samples of the following:—

ESSENCE "SPARKLING LIMETTA"—Soluble "Essence of Lemon"
ESSENCE "LEMON SQUASH"—Essence for Sherbet
ESSENCE "TONIC HEADING"—Essence for Ginger Ale

AND COMPARE WITH OTHER MAKERS.

Manufactory & Offices: 45 ROPE WORK LANE, GLASGOW.
LATE 32 MAIN STREET.

SYPHONS & SELTZOGENES

GREAT REDUCTION IN PRICE.

We have recently been entrusted with a most important Agency for the above-named goods. Our Principals are the best known firm in Paris, and the Syphons are undoubtedly the cheapest and strongest in the market. The tops are made of pure English Tin, guaranteed free from lead. The Seltzogenes are made on the well-known "Fevre" system, and each one is thoroughly tested before being sent out.

WE CAN GIVE TO LARGE AND SMALL BUYERS EXCEPTIONALLY LOW PRICES.
PLEASE WRITE US AT ONCE FOR PRICES, STATING QUANTITY OF EACH KIND REQUIRED

SODA-WATER MACHINERY.

MELBOURNE EXHIBITION, 1889, UNPRECEDENTED SUCCESS.

We have obtained at the above Exhibition

3 HIGHEST AWARDS POSSIBLE

A feat never accomplished before by any other house supplying requirements for the Aërated Water Trade.

These awards will carry with them **THREE GOLD MEDALS,** which were awarded as follows:—

1st—SODA-WATER MACHINERY (Highest Award possible).
1st—ESSENTIAL OILS & FRUIT ESSENCES (Highest Award possible).
1st—PATENT AND ORDINARY BOTTLES (Highest Award possible).

WRITE FOR NEW ILLUSTRATED CATALOGUE, POST FREE.

BRATBY & HINCHLIFFE, LIM.

Aerated Water Engineers and Glass Bottle Manufacturers,

SANDFORD ST., ANCOATS, MANCHESTER,

And at 146 MINORIES, LONDON, E.C.

TO AERATED WATER MANUFACTURERS

HAY'S (REGISTERED) SOLUBLE ESSENCES

ARE GUARANTEED TO BE THE FINEST IN THE MARKET

ESSENCES OF GINGER, LEMON, ORANGE &c.

HOP ALE AND GINGER ALE ESSENCES.

Besides GOLD & SILVER Medals, these Essences have obtained the HIGHEST TESTIMONIALS from all the Medical Journals & from the Principal Trade Journals in this & other Countries.

J. HAY, MANUFACTURING CHEMIST BEVERLEY RD.

HULL

PRICE LISTS FREE ON APPLICATION.

FAVARGER'S SYPHONS

ARE THE

BEST IN THE MARKET.

HEADS PURE TIN,

AND

GUARANTEED FREE FROM LEAD.

GLASS,

FINEST ANNEALED.

SYPHONS.

READ the following:—

"Edinburgh.

"We beg to say that we have used your "Syphons for many years, and are very well "pleased with them. We have tried other makers "but always found yours superior. We think your "Syphons the best of any we have seen.

"We are, yours truly, H. C. BAILDON & SON."

"Bournemouth.

"We cannot, we think, do better than tell you that of the Syphons "supplied us by you, and used by us during three successive seasons, we have not "had one out of order—if we except two with broken tubes; and only one burst, "and that on first time of filling. The Plating is, we consider, of special excellence "and wears well. We shall not need to look farther whilst you continue to supply us with what "we consider the best value in the market.—Yours truly, J. M. DOWDEN & CO."

PRICES, FULL PARTICULARS, AND TESTIMONIALS, APPLY TO

FAVARGER & CO., 76 TURNMILL STREET, E.C., LONDON

TELEPHONE, No. 7522 TELEGRAPHIC ADDRESS—"IDRIS KENTISH TOWN."

IDRIS & CO.

The Largest Syphon Fillers in the United Kingdom.

SODA. Brilliant, Pungent, and Sparkling.

POTASH. Prepared according to the British Pharmacopœia.

SELTZER. Pure and Delicious Table Water.

LITHIA of guaranteed strength.

LEMONADE. Pure fruity flavour of ripe Lemons.

PURITY. Water filtered by a special process, by which absolute purity is guaranteed. Distilled water used as required. Pure Chemicals only employed. All Goods are regularly subjected to strict analysis.

ELEGANT SYPHONS. Best Block Tin or Silver-plated Tops. IDRIS & Co. make their own Syphons, and can therefore guarantee freedom from deleterious metal.

LOWEST PRICES for Water, both in Syphons and Bottles. Write for Price List.

PROMPT DELIVERY by our Vans in London and Suburbs. Customers called on regularly once or twice a week. Country orders despatched same day as received.

IDRIS & CO. now supply a larger number of the London Hospitals, Public Institutions, and Chemists, than any other Manufacturers, which is in itself a sufficient guarantee of the excellence and purity of the Waters supplied by them.

"I have examined the Mineral Waters prepared by IDRIS & CO., and find that in regard to Chemical purity and brilliancy, they are unsurpassable."
JAMES EDMUNDS, M.D., M.R.C.P. Lond., &c.
Medical Officer of Health and Public Analyst to St. James's, London.

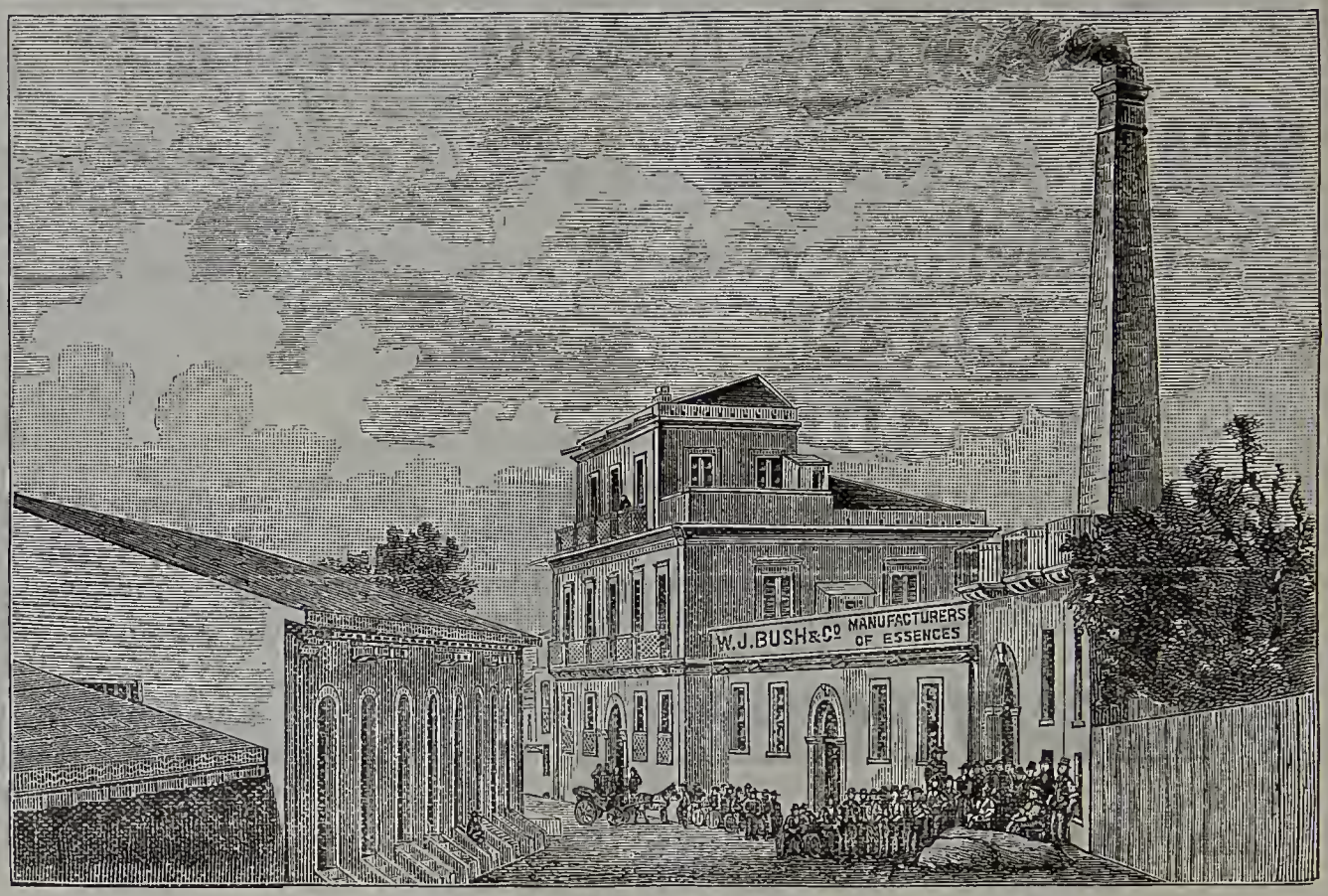
IDRIS & COMPANY,

KENTISH TOWN, LONDON, N.W.

PURE ESSENCE LEMON

DIRECT FROM THE MAKERS.

SAVE INTERMEDIATE PROFITS AND BUY PURE ESSENCES!



W. J. BUSH & CO.'S ESSENCES OF LEMON AND ORANGE FACTORY.

By making the Essences ourselves on the spot, we were enabled last season to offer to the Trade **a quality that had never been seen before in this or any other market!** Notwithstanding the great opposition we had to encounter, combined with the somewhat libellous statements that were made by our competitors, both here and at Messina—caused through common jealousy—the trade has appreciated our efforts and our success in being able to offer them an Essence so superior in quality, that **never before have we sold so large a quantity.** Through this fact we are pleased to inform our friends that it has been necessary for us to take another manufactory in **Villaggio Gazzi, Messina,** which is no less than **three times the size of the one in Strada Antico Cimitero,** a portrait of which you will see above.

W. J. BUSH & CO., ARTILLERY LANE, LONDON.

FITZSIMMONS & FEARNLEY'S SOLUBLE ESSENCES

HIGHLY CONCENTRATED, PURE, AND OF FINE FLAVOUR.

SOLUBLE ESSENCE OF LEMON
(Concentrated.)

Made from the finest selected Messina Lemons, and produces an exquisitely fine Lemonade. Double the strength of any other Essence in the market. Price, 6/6 per lb. Quantity required—¾ fluid ounce to each gallon of Syrup, making 106 10-oz. bottles.

SOLUBLE ESSENCE OF LEMON
(Ordinary Strength).

A very fine Essence, prepared from the fresh fruit. Price, 4/6 per lb. Quantity required—1½ fluid ounce to each gallon of Syrup.

SOLUBLE ESSENCE of GINGER ALE
(Belfast).

The absence of a Compound Essence from which a really high-class Ginger Ale can be prepared has ever been a source of trouble to Mineral Water Manufacturers. A great number of the leading hotel-keepers pay annually large sums of money for this beverage alone to the few privileged firms who have obtained a reputation for it. Knowing the serious loss of trade which local Mineral Water Manufacturers, both at home and abroad, experience in this manner, we have for some time been engaged in a most exhaustive study of the subject, and have at length arrived at such satisfactory conclusions from careful experiments that we are enabled to offer to every Mineral Water Manufacturer the means of successfully competing against those who have hitherto enjoyed a monopoly in the sale of high-class Ginger Ales. Price, 7/6 per lb. Quantity required—¾ fluid ounce per one gallon of Syrup.

SOLUBLE ESSENCE OF GINGER
(Jamaica).

Perfectly Soluble and highly Concentrated, guaranteed free from Capsicums. Imparts an exquisite ginger aroma. Price, 4/6 per lb. Quantity required—2 fluid ounces to each gallon of Syrup.

ESSENCE of "STONE" GINGER BEER

Produces an aërated beverage resembling in appearance, body, and flavour the old-fashioned "Stone" Fermented Ginger Beer, without the delay, uncertainty, and difficulty of the old process of fermentation. Economy in time, labour, and materials. Price, 6/6 per lb. Quantity required—1½ fluid ounce to each gallon of Syrup.

SOLUBLE ESSENCE OF HOP ALE.

Made from the choicest Kent Hops, and unrivalled for true hop flavour and aroma. Price, 4/6 per lb. Quantity required—2 fluid ounces to one gallon of Syrup.

SOLUBLE ESSENCE OF ORANGE
(Concentrated).

An exceedingly strong yet Soluble Essence, of fine flavour and aroma. A trial solicited. Price, 6/6 per lb. Quantity required—¾ fluid ounce per one gallon of Syrup.

SOLUBLE ESSENCE OF ORANGE
(Ordinary Strength).

Imparts the true flavour of Seville Oranges, and is perfectly soluble. Price, 4/6 per lb. Quantity required—2 ounces to each gallon of Syrup.

HEADING LIQUID.

We claim for our Heading Liquid that it is from 40 to 50 per cent. stronger than most preparations of the kind, and will be found specially suitable for Lemonade, Ginger Beer, Ginger Ale, and all beverages where a rich white creamy head is desired. Free from large bubbles. Price, 2/ per lb. Quantity required—1 drachm per gallon of Syrup.

MANUFACTURING CHEMISTS
97, Port St MANCHESTER

Indentors should distinctly specify "Fitzsimmon's & Fearnley's Manufacture."

SELTZOGENES.

Before placing their season's orders, Chemists are invited to write to us for quotations, as we are offering these goods at very Cut Prices. Having made special arrangements with a firm in Paris (previous to the advance in price of glass), we are enabled to quote Lower than any House in the Trade, and shall be pleased to furnish prices on application.

When writing, Chemists should state the probable quantities required. Orders can be booked now, and deliveries extended over several months if wished.

THOMPSON, WALTERS, HOLE & CO., LIM.

CURTAIN ROAD, LONDON, E.C.

CAFFYN'S
LIQUOR CARNIS.

MEAT JUICE OBTAINED BY A COLD PROCESS.

50 Holborn Viaduct,
London, E.C.

TO THE TRADE.

We beg leave to say that CAFFYN'S LIQUOR CARNIS will no longer be manufactured in Australia; all the patent rights, plant, and the entire business of the LIQUOR CARNIS CO., LIM., Melbourne, having been purchased by us, and machinery, &c., erected for the manufacture of Caffyn's Liquor Carnis in this country from the primest of English Beef.

By Letters Royal Patent.

EXACT SIZE OF SMALLER BOTTLE.

Pharmacists willing to distribute specimen bottles and literature to medical men will oblige by intimating the same to us and sending List of Medicos.

CAFFYN'S LIQUOR CARNIS is put up in 3-oz. and 6-oz. Bottles, which sell retail at 2/ and 3/6 respectively.

Supplied by all Wholesale Houses at 20/ and 34/ per dozen.

THE
LIQUOR CARNIS CO. LIMITED.

The LIQUOR CARNIS CO., LIM., HOLBORN VIADUCT, LONDON.

CONCENTRATED

PEPTONISED COCOA & MILK

AND CONCENTRATED

PEPTONISED MILK

(PATENT).

These two preparations are made with pure rich PRE-DIGESTED Country Milk, and, by mere dilution with hot water, afford a delicious restorative beverage the assimilation of which requires no digestive effort.

SAVORY & MOORE

LONDON.

Tins 1s. 6d. and 2s. 6d. Obtainable Everywhere.

REGISTERED.

TOWER TEA

OBTAINED THE

HIGHEST AWARD

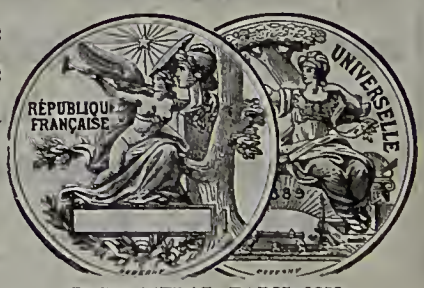
FOR TEA AT THE

PARIS EXHIBITION.

PRIZE MEDAL, PARIS, 1889.

To avoid imposition see that the trade marks (a Tower, with the word "Strength" across it, and "Tower Tea") are on every package, without which none is genuine.

WHERE VACANCIES EXIST AGENTS ARE APPOINTED BY

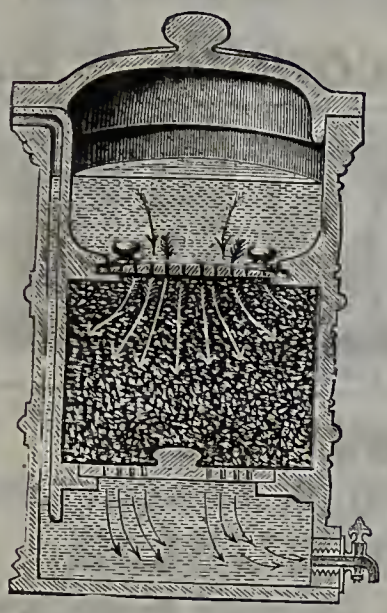


PRIZE MEDAL, PARIS, 1889.

THE GREAT TOWER STREET TEA CO., LIMITED

5 JEWRY STREET, LONDON, E.C.

GEORGE CHEAVIN'S



NEW PATENT GOLD MEDAL

"Idiocathartes"

REMOVABLE PLATE

WATER FILTER.

Under the Distinguished Patronage of

HER MAJESTY THE QUEEN OF ENGLAND, H.R.H. THE PRINCE OF WALES, HIS MAJESTY LEOPOLD, KING OF THE BELGIANS, HIS MAJESTY THE KING OF THE NETHERLANDS, &c., &c.

It is constrncted on the most scientific principles, and yet so exceedingly simple that it cannot get out of order differing in its construction and arrangements from all other Filters. The **New Patent Idiocathartes Removable Plate Filter** is simplicity itself, easy to manage, and under perfect control, while its deodorising and purifying powers are much greater than those of any other. It can be thoroughly cleansed and taken to pieces, leaving the whole of the interior open for inspection.

No Loose Pan or Inner Vessel to Cause Breakage.

It will be seen that this **NEW FILTER** differs entirely from any which has ever before been introduced, and that the Water is not only **perfectly purified** but also oxygenated, and rendered brisk and pleasant to the taste, and the effect it exercises, **even upon the blackest and foulest Thames water,** is surprising, and chemical analysis fails to detect the least trace of impurity in the water after once passing through this Filter.

The only Filter that can be depended npon to remove effectually from water all Germs of Disease, Metallic Impurities, Lead, Zinc, &c., dissolved in it, as well as all Animal, Vegetable, and Earthly Impurities held in suspension, and **absolutely cleansing it from all particles of Lead, Zinc, Lime, Iron, Sewage, Organic, Mineral, and Saline Impurities held in solution.**

It not only arrests Microbes and all other suspended matter (dead or alive), but also removes all **noxious matter in solution,** such as **sewage** or **metallic poisons** and deleterious gases. **No filtering medium possesses so powerful and so strong and absorbent and purifying a power as my "New Idiocathartes."** The water that issues from it is better than that of the finest spring. It has a larger body and a greater surface of a special purifying medium than are met with in any other, and is the most effective means known for purifying water for domestic, manufacturing, and general purposes.

It is adopted in preference to all others by the English and Foreign Governments, the principal Railway and Steamship Companies of the world, the *élite* of the Medical Profession, the London and Provincial Hospitals, and in the Mansions of the Nobility, the Board of Health, and the houses of Private Families at home and abroad, &c., &c. **Not only is it now found in every establishment of note throughout the United Kingdom, and the whole of Europe, but it has made its way into the most remote parts of the Globe—a success unparalleled by any other Filter in existence.**

G. CHEAVIN has received the First Prize in every Competition in All Parts of the World

CAUTION { BE PARTICULAR in ORDERING GEORGE CHEAVIN'S FILTERS, as there are imitations sold which are worthless.

SPECIAL WHOLESALE AGENTS—

W. B. FORDHAM & SONS, LIM.

36 to 40 YORK ROAD, KING'S CROSS, LONDON, N.

Telegrams—"FORDHAMS LONDON."

(Established 1825.)

LAMPLOUGH'S PYRETIC SALINE.

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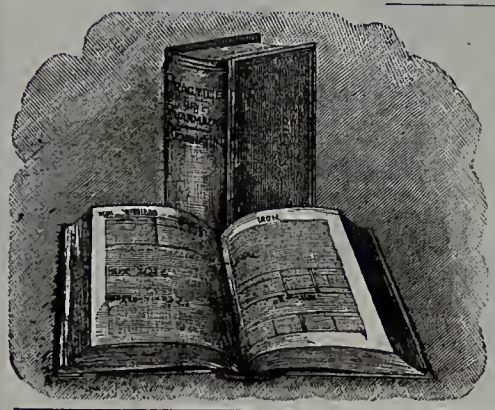

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THE CHEMIST AND DRUGGIST

ESTABLISHED 1859.

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The Pharmaceutical Association of New Zealand.

The Pharmaceutical Society of Queensland.

The Pharmaceutical Society of South Australia.

The Hobart Chemists' Association.

The Launceston Pharmaceutical Association.

South African Pharmaceutical Association.

For Australasian subscribers the subsidiary journal, THE CHEMIST AND DRUGGIST OF AUSTRALASIA, is included.

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POSTCARD COMPETITION—APRIL.

THE COUNCIL CANDIDATES.

OUR April contest called forth a large competition, much interest being evidently taken in the forthcoming election to the Pharmaceutical Council. The predictions we have received vary so largely that it is impossible to trace anything like a "flowing tide" in any direction. In the real struggle, as is well known, votes are given after well-weighed considerations of principles; in this frivolous preliminary examination familiar names seem to have more influence than noble programmes. This may, perhaps, account for the circumstance that of the fourteen who would be elected if our sham fight had been the real one, only two of the new men come in, these two being candidates who have been unsuccessful competitors on previous occasions. In the election, according to the post cards, the successful fourteen in the order of their popularity are:—

1 Atkins	6 Hampson	11 Leigh
2 Greenish	7 Richardson	12 Harrison
3 Abraham	8 Carteighe	13 Broad
4 Schacht	9 Evans	14 Spink
5 Hills	10 Martin	

According to this competition, Mr. Gostling is the only retiring member of the Council who is to be "chucked." Mr. Atkins, it will be seen, is first favourite for the top place; Mr. Greenish and Mr. Carteighe run him very closely for that position (though on the average the last-named only gets to the eighth place), and more than half the cards received predict one of these three to finish first. Of the others for whom the place of honour is predicted Messrs. Abraham, Schacht, Coleman, and Hampson are the most popular. The capacity of Messrs. Evans, Hills, Leigh, Storrar, Broad, Martin, Gostling, and Richardson to reach the highest position is believed in by scattered admirers, and several other names are backed by a single disciple each. Mr. Ross is an easy first for the bottom place; Messrs. Lake, Grose, Spink, Storrar, Maltby, Wells, and Hopkin following him up at more or less respectful distances. Mr. Carteighe is consigned to the absolutely last place by only two stern moralists; and Messrs. Greenish, and Broad are the only candidates who entirely escape this kind of condemnation. The prize for the best anticipation will be awarded after the official poll has been declared.

SUGGESTED TAX ON AËRATED WATERS.—In the House of Commons on Thursday Mr. Watt asked the Chancellor of the Exchequer whether he would consider the advisability of imposing a duty of sixpence per dozen upon lemonade, soda, and other aërated waters containing a percentage of alcohol, which it was estimated would produce a return of not less than 1,000,000*l.* sterling per annum. Mr. Goschen, in reply, said: The hon. gentleman, since he originally put the question on the paper, has added the words, "containing a percentage of alcohol." There are, so far as I am aware, very few of those beverages, if any, which do contain a percentage of alcohol, and certainly I am at a loss to discover any calculation by which we could reach the sum of a million sterling, even if we were to tax soda water and all other kinds of aërated drinks. I do not see my way to putting a tax on aërated waters. (Hear.)

CHEMISTS' ASSISTANTS' ASSOCIATION.—The members of the above spent a most enjoyable evening on Thursday, May 8, at Mr. F. J. Hanbury's, Clapton. The proceedings partook of a social and scientific character, and ample justice was done to the good things provided for body and mind. Mr. Hanbury's unrivalled herbarium was on view, presided over by himself; a fine entomological collection was shown by the Rev. J. Seymour St. John; a room was devoted to an interesting collection of microscopic objects; and organ solos, songs by Miss Florence Monk (daughter of the late Professor W. H. Monk), Mr. Taylor, Mr. Strother, and others, served to make the time pass only too speedily.

WE have pleasure in announcing to Continental subscribers that henceforth, by arrangement with the post offices of the various countries, subscriptions to THE CHEMIST AND DRUGGIST can be paid at any post office in Austria-Hungary, Belgium, Denmark, Germany, Holland, Norway, Russia, and Sweden at our rates, namely 10*s.* per annum including postal delivery to subscribers in any of those countries. Subscriptions may date from the first issue of any month.

THE CHEMIST AND DRUGGIST OF AUSTRALASIA, published monthly at our Melbourne office, can be supplied to subscribers outside Australasia at 5*s.* per annum, payable in advance, and commencing at any date. Chemists interested in the drug trade and the pharmaceutical affairs of the Australasian Colonies will find a full record of all events affecting their occupation in *The Chemist and Druggist of Australasia.* Single copies can be supplied at 6*d.* each. Application should be made by English or American subscribers to the office at 42 Cannon Street, London.

ADVERTISEMENTS of situations vacant and wanted, businesses for disposal, &c., will be received by us up till the first post on Friday morning.

Metropolitan Reports.

CRICKET.—Allenbury's A.C. *v.* Allen's C.C.:—These two cricket clubs, comprising the employés of Messrs. Allen & Hanburys, chemists, London, and Messrs. Stafford Allen & Co., City Road, met at Claptou on Saturday, May 3, resulting in a win for Allen's C.C. by 40 runs.

NORTH KENSINGTON CHEMISTS' ASSOCIATION.—At the next meeting of this Association "Trade Interests" is to he discussed. It was intended to hold the meeting on May 20, but as the Pharmaceutical Society's Conversazione is to be on that evening, May 13 is fixed for the discussion, and, as usual, the members will meet in the Leinster Hotel, Ossington Street, W., at 9 P.M.

CHEMICAL SOCIETY.—At the meeting on May 15, at 8 P.M., there will be a ballot for the election of Fellows, and papers will be read on:—"Diethylphosphorous Acid," by Professor Thorpe, F.R.S., and Mr. Barker North; "The Ten Isomeric Dichloronaphthalenes" and "The Action of Chlorine on Naphthalene and Naphthalene Derivatives," by Professor Armstroug and Mr. W. P. Wynne; "A Third Naphthaquinone," by Professor Meldola and Mr. Frank Hughes.—On Thursday evening the Society had an exhibition of chemical apparatus in their rooms at Burlington House. Most of the articles shown are, or have heen, used in research work of the highest character, hut there were many examples of apparatus for demonstration purposes, and several of great practieal utility. In the council-room Mr. A. W. Stokes bad on show a new form of air-batb, constructed on M. A. Adam's principle. This is a square chamber with double walls, about the size of a castor-oil tin, and made of tinned iron. The interior is fitted with perforated shelves, and articles are put into it through a lid at the top (which is made of glass). The bath is simple in eonstruction and inexpensive. The colorimeter for Nesslerising is also a good idea, as the standard tube is connected with a graduated one, whereby measured portions ean be removed without disturbing the standard tube. Beside this group was the imposing apparatus used by Professor Thorpe for making phosphorous acid. In tbe preparation-room were a number of exhibits which interested those pharmacists who looked into the sbow. Mr. W. A. Sbenstone was busy with his blowpipe, showing how some of the common forms of glass apparatus can be home-made, and beside him were several examples of his skill in the glass-blowing art, these consisting of vaeuum joints and taps with mereury as the luting; a leeture-apparatus for studying the formation of ozone, and a simple upright coudenser which appeared to be well adapted for heavy liquids. Beside tbis, Professor Dunstan exhibited his flask for estimating organic nitrites, and an ingenious arrangement for distilling mercury in a vacuum. In the latter instrument, Professor Dunstan takes advantage of the prineiple of the barometer, widening the top of a barometer-tube into a bulb which is fused to another tube, passing down the side of it. The bottom of the barometer tuhe is eonneeted with a mercury reservoir, which can be moved up and down. This allows the whole apparatus to be filled with mercury, and, all air being excluded, a ring of tiny gas jets is brought below the bulb; the heat drives out the surplus mercury, and distillation proceeds continuously. The great advantage which this apparatus has over Clark's is tbat a small quantity of mereury can he used with it. In the same room we noticed the apparatus used by Sir H. E. Roscoe aud Mr. Lunt for determining the amount of dissolved gases in water; and some useful bits of apparatus employed at the Central Institution laboratories were exhibited by Professor Armstrong. In the library Mr. Piekering exhibited the more ingenious arrangements whieh he has used in determining heat-capacities of weak solutions. Dr. Sheridan Lea had two porcelain vaccuum funnels, the base of which is like an ordinary funnel, but the top is conneeted with a cylinder, there heing hetween the two either a porous porcelain diaphragm or a perforated one. Tbe Rothamsted chemists (Lawes and Gilbert) showed photographs of plants and roots grown in experiments on the fixation of nitrogen; and the chemists engaged with Brookes, Simpson & Spiller (Limited) had a fine sbow of synthetic bodies, mostly on the way to brilliant colours. A Bunsen burner with a sliding tube to heighten tbe flame was another of the ingenious things which we saw; but it is useless to attempt to mention everything, and we regret that the exhibition was only open one night, for it deserved a longer life.

A COMPLICATED BALANCE.—In the City of London Court on Thursday, Messrs. W. J. Bush & Co, of Artillery Lane, sued Mr. S. J. West, of the "Museum," 44, Medway Road, Gillingham, described as a cordial manufacturer, to recover 9*l.* 14*s.* 8*d.*, balance of an account for ehemicals sold and delivered between May 22, 1888, and Mareh 17, 1890. When the case was called on, the defendant produced a letter, written by the plaintiffs, in which tbey consented to accept payment of tbe money due to tbem at the rate of 1*l.* per month. The Registrar asked him whether he had received all tbe goods mentioned in the particulars. Defendant replied that be did not know. When he received the plaintiff's letter of November 26, he owed them 8*l.* 19*s.* 5*d.*, and since then he had paid 4*l.* 2*s.* 6*d.*, leaving a balance due of 3*l.* 16*s.* 11*d.* The defendaut's representative said that the statement put in showing a balance of 8*l.* 19*s.* 5*d.* was for an overdue portion of tbe aeeount. The Registrar told him he must be bound by it, and from the documents which had heen put in, he found that there was due to the plaintiffs the sum named by the defeudant, 3*l.* 16*s.* 11*d.* He should report to the Court to that effect.

WHO APPEARED FOR THE DEFENDANT?—There came before Judge Eddis, at the Clerkenwell County Court on Wednesday, a motion for the eonfirmation of the Registrar's certifieate in an action of The Chemists' Aërated Mineral Water Association (Limited) against Dr. A. Thorburn, 101 Drury Lane, to reeover the sum of 18*l.* 7*s.* 6*d.*, being the value of $14\frac{2}{12}$ dozen syphons, and $11\frac{1}{2}$ dozeu cases belonging to the plaintiffs and alleged to be wrongfully detained by the defendant. Mr. Baffen, barrister, appeared for the plaintiff company. Dr. Thorburn, who appeared in person, said the reference had been heard before the Registrar, but he had never been informed of the fixture. He asked that the claim be again referred back that his defence might be heard. Mr. Baffen said his brief had been indorsed that the case would be heard before the Registrar on April 30 at 2.30. The brief of the defendant was produced, and it bore no such indorsement. Then the Registrar was sent for, and said that some one had appeared for the defendant. He indieated a person then in court as the party. Dr. Thorburn said he knew nothing about the matter. The young man alluded to said he was a solicitor's elerk and had not acted as a solicitor. All he had done was to tell counsel who was the solieitor in tbe case. He was not in court on the day referred to. The solicitor for the plaintiff said defendant was present when the fixture for tbe Registrar's hearing was made. He also said the young man who had just spoken was present. The judge has taken time to disentangle the mystery, but threatens to send to prison anybody who shall be found to have committed contempt in his court.

A JURY ON LABELLING POISONS.—On May 6, Dr. Danford Thomas held an inquest at Edgware Road on the hody of George Warwick, 57, who lodged at 22 Capland Street, Marylebone. On Wednesday, April 23, the deceased having to clean an enamelled pan, purchased some spirits of salt at an oil-shop, taking with him a licensed victuallers' spirit bottle unlabelled. Only using a portion of the acid, he placed the bottle containing the remainder ou a shelf on which articles of food were placed. On the following morning he got out of bed and weut to this shelf, where he had also placed a bottle of similar description containing some whisky. He took hold of one and began to drink the contents, but speedily fonnd out that he had taken up the wrong bottle, and had swallowed some of the acid poison. He was taken to St. Mary's Hospital, where he died on Thursday, May 1. Mr. E. O. Kingdon, one of the house physieians at the hospital, stated that the deceased died from exhaustion following on ulceration of the throat and stomaeh by the action of the spirits of salt. The coroner informed the jury that the law regarding the sale of poisons by chemists was very strict. The Sale of Poisons Act contained two schedules, one making it imperative that the

vessel or parcel shall be labelled "Poison," with the name and address of the vendor; and another that the buyer shall sign the sale book with his correct name and address; but all this was left out in the other clauses of the Act, so that oilmen and chandler's-shop keepers, with their assistants, could supply poison in all kinds of bottles and vessels, with the result that people, especially children, were liable to get poisoned by mistake. The jury returned a verdict of Misadventure, adding the following rider:—"This jury of sixteen inhabitants of Paddington desire to call the attention of the Home Secretary to the dangers to life constantly arising from the sale of acid poisons at oil-shops, &c., in any sort of bottles and vessels, without labels or any indication of the contents, and would suggest that all persons selling poisons should do so only under the conditions imposed by the Sale of Drugs and Poisons Act, as relating to poisons sold by chemists and druggists."

Provincial Reports.

Items of news, and newspapers containing matters of interest to the trade, sent to the Editor will much oblige.

BIRMINGHAM.

Mr. Jarvis disclaims all connection with the word-puzzle competition which was advertised in the daily papers a few days ago. The replies were to be addressed to his shop, but he was not aware of their nature.

M.C.C.A.—A council meeting was held on Tuesday last, when the annual report was drafted and a new method of electing council was adopted and ordered to be circulated with the annual report. A cricket committee was appointed, and the secretary authorised to secure a convenient field.

The Early Closing Movement began in Birmingham on Wednesday. Chemists in Smallheath close from 1 P.M. to 6 P.M., and those in Sparkbrook and Moseley Road from 2 P.M. to 6 P.M. One large central firm also release the greater part of their men on alternate Wednesdays from 2 P.M. for the rest of the day. In the Bristol Road unanimity is very desirable on this question, but has not yet been attained.

The Authorities of the Board School are employing a man whose special duty is to secure good posts of a scientific nature for the boys who have been trained in the technical schools. A circular letter has been issued to analysts, manufacturers, and the leading chemists asking if they have need of boys superiorly trained in the science of chemistry and allied subjects.

A Child died at Aston last week after taking some "soothing syrup" obtained from a local chemist, and the medical man who was called in said that death was due to "an irritant poison," but at the adjourned inquest held on Wednesday, Dr. Bostock Hill was able to say that there was no evidence of irritant poison in the child's stomach, and the jury attributed the death to natural causes. The chemist, therefore, stands free from blame in the matter.

Action under the Pharmacy Act.—On Monday Judge Chalmers gave judgment in the action brought by the Pharmaceutical Society of Great Britain against Thomas Onions, Gooch Street, manager for T. Onions & Co. (Limited), chemists and druggists, to recover 10*l.* penalty for selling a poisonous drug without being duly qualified to do so When the case was tried (The Chemist and Druggist, March 15, p. 257) his honour found that the defendant was not a duly-qualified chemist, but reserved judgment pending the decision of the Divisional Court in the appeal of the Pharmaceutical Society *v.* Wheeldon. Mr. R. Chinn now appeared for the plaintiffs in the action against Onions, and asked for judgment. His honour gave judgment for the Society for the penalties sued for, and costs.

He Wanted a Plaster.—Dennis Flynn, a labouring Irishman, astonished a chemist on the Parade the other evening. He went into the shop and began to strip himself, in spite of the protestations of our friend the chemist, and shortly after he was snugly deposited in a police-cell. Said Dennis to the magistrate on Wednesday, "It's a pain in moi soide, surr, and I went to get a plashter. Moi throat's so bad that I can't cough, and the 'influenzy' and chronic bronchitis, together with the docthor's pills and medicine, has made me so wake, surr." An unsentimental police-inspector would have it that Dennis was drunk; he had just served seven days for that weakness, and as he retired for another month the memory of his "influenzy" and other troubles welled up in the exclamation, "Sure, yon moight as well 'wake' me at onst." The unsympathetic public laughed.

HULL.

Poisoned by Carbolic Fumes.—On April 30, at Hull, Mrs. Mary Ann Warren (59), died from the effects of inhaling carbolic acid fumes. Deceased had been engaged in scraping the walls of a house infested with insects. A quantity of insecticide, had been placed on the walls, but the quantity of carbolic acid in its composition was insufficient, it was alleged, to kill a healthy adult. Mrs. Warren who suffered from a weak heart was taken very ill whilst engaged in her occupation, and died soon after being taken home.

IPSWICH.

Gas-explosion at a Drug Store. — A gas-explosion took place at the premises of the Provincial Drug Company, Westgate Street, Ipswich, on Monday last. The explosion occurred whilst one of the workmen of the gas company was endeavouring to detect a leakage behind the shop. The man, although severely burnt, at once made his way to the meter and turned off the gas. The whole of the front windows were blown into the street, and the stock also suffered. A fire broke out immediately, but it was speedily subdued with the assistance of the neighbouring tradesmen. The cost of the damage is estimated at 200*l.*

LIVERPOOL.

Earlier Closing.—Several members of the trade are canvassing in different districts of the city, with a view to getting those who have not yet agreed to close at 9 P.M. every night except on Saturdays, to do so.

Collapse of the Associated Soirée.—On April 26, at a meeting of the delegates from the Literary, Scientific and Art Societies of Liverpool, it was announced that the last Soirée had resulted in a loss of 80*l.*, and had thus absorbed nearly all the surplus from former years. After some discussion as to why the public no longer evince the same interest in this gathering as heretofore, the meeting was adjourned; but it was clearly understood that an extensive Soirée in St. George's Hall, had become a thing of the past. For some unexplained reason, the Chemists' Association, although sending delegates and participating in the guarantee fund, was not represented on the committee last year.

The Appeal Case.—The verdict in the case of the Pharmaceutical Society *v.* Wheeldon, has caused considerable discussion amongst chemists and assistants here. The general feeling is that the decision must be accepted as final, and the only reasonable course is to adopt the new reading of the Act. Many feel, however, that the one chief point which caused the Chemists' Association to move in the matter was neither argued by council nor disposed of by judges—viz, the hardship on those assistants who have duly served an apprenticeship and have gained considerable experience, but believing that they had a right to continue to act under a registered master, have never legally qualified. Many of these have wives and families, and unless the Society uses considerable caution in the exercise of its newly discovered powers, this point will yet have to be dealt with.

MANCHESTER.

A New City Pharmacy.—Mr. Walker, late of Heaton Mersey, has opened a new pharmacy in the Market Place, near the Royal Exchange. He has been succeeded in his

ate business by Mr. A. Wolstenholme, late dispenser at the Withington Union Workhouse Hospital.

Bottom at Last.—On a recent visit through the city I was surprised to see many new tea-shops where patent medicines, &c., could be had as "presents." The window was full of such articles as Sainsbury's lavender-water, Needham's polishing paste, Siegel's syrup, Eno's fruit salt, &c.

Not Original.—One of the craft, in a leading thoroughfare of the city, is to offer a prize of five guineas to the person who shall guess the nearest to the total number of small pills contained in a pottle bottle in the window. There are pharmacists who regard this method of advertising as "unprofessional."

Assistant Lecturer at Owens College.—There are many applicants for the post of curator of materia medica museum and teacher of pharmacy and materia medica at Owens College. Among others, Mr. William Kirkby is an applicant, and it is generally believed will obtain the post, recently vacated by Mr. William Elborne, who has removed to Cambridge.

The Coming Election.—Many pharmacists here whom I have visited are completely and utterly indifferent regarding the above. It is only another instance of the apathy which seems to have taken hold of the pharmaceutical portion of Cottonopolis. One pharmacist went so far as to say he would vote any way "for a pint." Surely this was a cruel joke.

IRELAND.

The Belfast druggists' assistants are among the latest additions to the early-closing agitators.

At the Annual Vestry Elections in Dublin, four pharmacists and seven apothecaries have been returned.

The Royal Dublin Society, at its recent meeting, considered a proposal to devote a sum of money in aid of botanical research.

Fire at a Druggist's.—A fire, the origin of which is unknown, has wrought considerable damage to the drug and general warehouse of Mr. M. Conlan, Galway.

New Company.—The Lucan sulphur and iron springs, said to excel many English and Continental spas, have been taken over and floated as a joint-stock company.

Sarsaparilla at Sixpence a Quart is the latest evolution from the brain of a South Dublin chemist; its "miraculous" virtues warranted to cure anything short of a wooden leg.

Important to Contractors.—For refusing to supply goods according to the terms of his contract with the Newry Board of Guardians, a local merchant has been mulcted in 50*l*. damages.

An Obstreperous Patient.—For attempting to assault the dispensary officer of the local union, a Cork pauper who thus evinced his objection to swallow "docthur's sthuff" has been imprisoned for a month.

Compensating a Chemist.—The grand jury of the county Dublin have awarded to Mr. W. V. Furlong, chemist, the Medical Hall, Glasthule, 14*l*., compensation for the malicious breaking of his plate-glass windows.

Belfast Aerated-water Trade.—From the quarterly report of the Belfast Harbour Commissioners, it appears that for ten tons of mineral and medicinal waters imported during the period just ended, the exports amounted to 1,581 tons.

Another Richmond in the Field.—A rival to Succi is at present located in Limerick workhouse infirmary, who refuses all descriptions of food, despite efforts to the contrary. A suggestion has been made to exhibit him at a penny a head to recoup the guardians for his "maintenance."

Chemists' and Druggists' Association of Ireland. At a committee-meeting of the Dublin branch of this Association, held on Thursday, May 1, Mr. Rankin, from Belfast, was introduced, and explained several points in reference to the prosecution against him by the Pharmaceutical Society. A sub-committee was appointed to assist in the promotion of the Pharmacy Amendment Bill. The members of the sub-committee are Messrs. M'Neight, Boyd, Alexander, and Dowling (hon. secretary). This sub-committee met on Monday last, and agreed to send Messrs. M'Neight and Boyd to London on the business of the Bill. A letter to members of Parliament from the Dublin branch was drafted and agreed to. We understand that a letter to members has also been sent from the Belfast branch.

SCOTLAND.

Edinburgh.

International Exhibition.—The second International Exhibition held in Edinburgh was opened on Thursday, May 1, by the Duke and Duchess of Edinburgh. Like the opening ceremonies of the two previous Scottish International Exhibitions the present one was favoured with lovely weather; in fact, on each occasion the opening day was the finest of the season up to the time. Since the clerk of the weather has again shown such marked attention to the necessities of the inauguration, it may fairly be predicted that for this exhibition, like the others, a successful course is in store.

The original intention of the promoters of this undertaking was to make it merely representative of electrical science. As arrangements proceeded, however, circumstances indicated that there was good prospect of securing an exhibition of a general character, while giving prominence to electrical work. It was therefore ultimately decided to make the exhibition an international one, and to admit representative goods from all industries.

The site chosen is at the outskirts of the western suburb of Merchiston, and is, in point of natural surroundings, very attractive. It is also convenient for being reached both by trains and tramcars. The North British Railway has a station on its suburban line in the very centre of the exhibition; the Caledonian has a branch running into the grounds from its Edinburgh and Glasgow line; access can be had by tramcar from the city by two routes, both having their termini at the gates.

The extent of ground occupied by the buildings and open spaces is about 80 acres. The frontage of the main structure is 700 feet long. The usual provision has been made for amusements: inside there is a grand hall, to seat 3,000 people, for musical performances; outside there is a switch-back railway and various kindred frivolities, while "ye ocean wave" is prepared to make anyone seasick for a very small charge.

It is rather early yet to pronounce a decided opinion as to the merits of the exhibition as an exhibition, because many of the stands which give promise of excellence are yet in an unfinished state. Especially is this so in regard to the foreign element, which is largely represented. Some of the Continental stands already complete have beautiful exhibits of pottery and Bohemian glass. When the Austrian and Italian courts are finished they will be among the most attractive parts of the exhibition to visitors.

The previous exhibitions in Edinburgh contained several representative pharmaceutical displays, and the Glasgow Exhibition of 1888, although somewhat wanting in interest in pure pharmacy, contained very fine stands of chemicals and chemical products. The exhibition now inaugurated, possesses less than either of these to interest the pharmacist if he confine his observation to matters closely related to his business. Chemicals may be said to be entirely absent.

Messrs. Burroughs, Wellcome & Co. have a large floor space, on which they have three handsome square upright cases, in which they show examples of their tabloids and other specialities. They make a fine display of Kepler Malt Extract, lanoline preparations, hazeline; and they also show Livingstone's medicine-chest, H. M. Stanley's Congo medicine-chest, steam atomizers, Vereker inhaler, pinol in various forms. They give prominence to the goods for which they are special agents. Lundborg's perfumes, which are now so well known among those who appreciate a perfume of taste, if we may use the expression, are charmingly displayed. High in the tall case they are disposed on a glass shelf, and looking from below upwards, they appear to be suspended in space; the whole effect is striking and artistic. This exhibit as a whole, does credit to the exquisite taste which charac-

terises all the work of the firm. On a table beside the cases are shown a drug-mill and one of the screw tincture-presses.

Close by, Mr. Shirley, of A 1 menthol fame, has a stall in course of arrangement. So far only specimens of menthol cones and "everfresh" salts are to be seen.

Messrs. Thomas Symington & Co., Beaverbank Works, Edinburgh, show a very fine case illustrating their manufactures, which are mainly essences of coffee, coffee and chicory, dandelion coffee, malt extract, cocoa and milk. They show fine specimens of the raw products, such as chicory and coffee-beans. Their essences are mostly so well known that they do not require description. The essence of dandelion coffee is very fine. Essence of pure coffee is also very characteristic; it is almost too fine for the popular taste, which has become habituated to the presence of chicory, which was originally added to coffee as an adulterant, but now is used in order to please the public taste. The malt extract strikes us as being a little thin, but it certainly possesses marked diastasic properties; if it will keep, it deserves the name of "perfect" which the makers give it.

Mr. Joshua Barret, of "Mandrake embrocation" celebrity, has a stall on which he has hung the legend, "I will cure, in one minute, headache, earache, or toothache, free of charge. I wish by this means to prove to the public the value of my marvellous mandrake embrocation." When our representative was passing, Mr. Barret had just returned, as he said, from curing two cases of toothache, making 17 he had cured that day. Our representative hoped he would be suitably rewarded. Mr. Barret seemed to think appreciation of work of this sort was slow to awaken in the northern mind. "In the south," said the apostle of mandrake, "when we cure a case of toothache, the relieved sufferer buys a bottle of our marvellous medicine; here he does not." Mr. Barret thinks, however, that the northern mind "will come right in time." As a show of manufacturing is made at this stand, the mandrake preparations are allowed to be sold.

Beef-preparations are in great force. Bovril, Bouillon Fleet, Brand & Co., and Mason & Co., all have good displays.

Among the exhibitors of perfumery are Messrs. Gosnell and Co. and the Crown Perfumery Co. The attendants at this latter stall assail everyone who looks at it to buy. We should think retailers in town who stock the company's goods would not like this. The Scottish Drug Co., Limited, make a feature of white-heather perfume, which is allowed to be sold, as some part of the putting-up is done in the exhibition.

Lavender-flowers, very neatly put up in coloured cloth bags, are offered by Messrs. Geo. Stewart & Co, Leith. The flowers are good, and the "bagging" is done at the stand.

Soluble essences, essential oils, and vegetable colours are well shown by Messrs. W. J. Bush & Co.

Messrs. Wm. Rankin & Sons, Glasgow, show their cork mats, which they introduce through chemists. Their exhibit is very pretty and well arranged. In addition to the bath-mats, the production of ordinary vial corks is shown in its successive stages. Some specimens of fancy work in cork lend attractiveness to the exhibit.

Inverness.

The Chemists' Assistants' and Apprentices' Association held their annual supper and conversazione last week in the Victoria Hotel, under the presidency of Mr. D. Macritchie, chemist. A number of medical guests were present. A satisfactory report was read by the secretary, and a number of toasts, songs, and recitations occupied the rest of the evening.

General News.

The Apothecaries' Act.—A chemist and druggist in Exeter has lately paid the sum of 65*l.* 5*s.* 6*d.* in fines and costs, for alleged infringement of the Apothecaries Act.

The Swiss Pharmacopœia Commission have decided to publish the new edition of the *Pharmacopœia Helvetica* in the three languages spoken in the country—German, French, and Italian.

The Cultivation of Opium has been commenced in Russia, in the Lipowetz District of the Government of Kieff. The opium yielded by the first crop of the plants contained 5·13 per cent. of morphia.

Poisoned by Mistake.—On Wednesday, May 30, Elizabeth Proctor, 75, wife of Benjamin Proctor, weaver, of Armley, Leeds, died from the effects of spirits of ammonia, of which she took a dose in mistake for medicine. A verdict of Death from misadventure was returned.

The Amsterdam Quinine Factory.—The annual meeting of the shareholders in this concern was held in Amsterdam on April 30, Dr. J. E. de Vry in the chair. The directors' report for the year 1889 showed a satisfactory position of affairs. The deliveries of quinine sulphate (irrespective of other quinine salts) from the works during the past year have been about 400,000 oz., and the accounts show a profit sufficiently large to admit of the payment of a dividend of $6\frac{1}{5}$ per cent. Mr. Paul vom Rath, the retiring director, was re-elected.

A Family Poisoned.—A few days ago, at Sudbury, the family of Mr. John Wright, of East Street, after eating a rhubarb pudding at dinner, were taken suddenly ill, and as symptoms of poisoning supervened, medical assistance was at once sought, and the family are now out of danger. On examining the ground in the garden from which the rhubarb was taken, the remains of a large decomposed rat, which had died through eating phosphorus paste, was found in the crown of the rhubarb, and this, without doubt, had been the singular cause of the poisoned food.

Laudanum Poisoning.—At Sunderland, on Tuesday last, a woman, named Matilda Horn, died from the effects of laudanum which she had obtained from Mr. Williamson, chemist, Trimdon Street, Sunderland, for the purpose, so she stated, of making up a mixture for a bad throat. Dr. Norie was called in on Saturday evening, and found the deceased in a comatose condition. He gave emetics and applied the stomach-pump without effect, the laudanum then having become absorbed in the system. A verdict of "suicide during temporary insanity" was returned.

The Chemical Works of Hoffmann and Schötensack, in Ludwigshafen (Germany), according to the balance-sheet just issued, appear to form an exception to the general prosperity of the chemical industry in Germany in 1889. In the year 1888 these works had a profit of 171,359m., but the accounts for 1889 show a loss of 9,553m. This unfavourable result is attributed to a variety of causes, such as the effluxion of the Kolbe patent for the manufacture of salicylic acid, and the fact that the manufacture of several articles, having ceased to be profitable, had to be abandoned or placed on a different footing. In the place of these the manufacture of a series of what promise to be profitable articles has been commenced.

The Borax Company (Limited).—The ordinary general meeting of the Borax Company (Limited) was held on April 29 at Winchester House, Old Broad Street. The Hon. H. A. Lawrence presided. The accounts submitted at the last meeting were for fourteen months, and 6,000*l.* was then carried forward without paying a dividend. This year, on a trading of only ten months, they had been able to pay not only a dividend of 5 per cent., but to carry forward, including the sum brought forward last year, 7,500*l.* On account of the ten months' trading, they had provided for debenture interest and sinking fund for twelve months. The comparatively low prices of borax and boracic acid, compared with what they were in former years, had stimulated consumption to a considerable extent. Resolutions were passed declaring a dividend of 8*s.* 4*d.* a share on the ordinary shares, tax free, being equal to 5 per cent. per annum for the ten months included in the accounts submitted to the meeting, and re-electing the retiring directors and auditors.

The Java Cinchona and Coca Industries.—At the annual meeting of shareholders of the West Java Cinchona Cultivation Company, which took place in Amsterdam last week, the directors stated that the net profit for the year 1889 amounted to 24,092f., admitting of a dividend of 2·4 per cent. The company's four plantations now contain four million cinchona trees, the number having been increased by 225,000 during the year under notice. The low prices

obtained for bark during 1889 induced the directors to give instructions to their managers in Java to restrict the harvesting of bark as much as possible, and to commence harvesting later in the season than usual; and a large part of the crop harvested in 1889 actually remains unsold, and over 100 tons are kept ready for the market as soon the price improves. The harvest for 1890 is estimated at 150 tons and that for 1891 at least 220 tons. The report referring to the company's coca-plantations is favourable. There are now 300,000 coca-plants in cultivation at Tjiseureuh and 9,000 at Bajabang.

THE ADVERTISING DENTIST.—Mr. Partridge, whose name has been removed from the Dentists' Register because he advertised, tried on Monday last to induce the Court of Appeal to reverse the judgment of Mr. Baron Huddleston, which was in support of the action of the Medical Council. Mr. Partridge was a practising dentist when the Dentists' Act was passed and he did not wish to be entered on the register in respect of having so practised, and he therefore passed an examination and obtained a diploma from the Royal College of Surgeons in Ireland as a licentiate in dental surgery, and was entered on the Dentists' Register in respect of this qualification. Every applicant for a diploma is required by the College to declare that if the diploma is granted he will not seek to attract business by advertising or by any practice considered by the college to be unbecoming, but that he agrees that the diploma shall be cancelled on its being proved to the satisfaction of the president and council of the college that he has done so. The plaintiff entered into this undertaking. In 1883 the plaintiff became suddenly blind, and was unable to attend personally to his practice. He thereupon started a dental institution in South Kensington, and employed qualified assistants, whom he paid. He advertised this institution. In July 1885 the College of Surgeons in Ireland withdrew the plaintiff's diploma on the ground that he had advertised in connexion with his profession, and notified this fact to the General Council of Medical Education and Registration. This latter body, upon the ground that the plaintiff had lost his qualication, on June 2, 1886, ordered his name to be erased from the Dentists' Register. A *mandamus* was granted by the Court directing the council to restore the plaintiff's name to the register on the ground that they had not held any inquiry and had not acted under sections 13 and 15 of the Dentists' Act, 1878. The plaintiff's name was accordingly restored to the register on September 18, 1887, and the plaintiff brought this action to recover damages for the wrongful erasure of his name during this period. The General Medical Council subsequently held an inquiry under section 15 of the Act, and on November 25, 1887, ordered the plaintiff's name to be removed from the register. The action for damages was tried by Mr. Baron Huddleston without a jury, and he held that the action was not maintainable without evidence of malice, and gave judgment for the defendants. The plaintiff appealed, and the Court now dismissed the appeal on the ground that no action could lie for a judicial act, even though a mistake had been made, without proof of malice.

THE RAILWAY RATES INQUIRY.

THE Board of Trade inquiry respecting the tables for the classification of merchandise, submitted by the railway companies under the Railway and Canal Traffic Act of 1888, has been continued during the present week upon

"CASTOR-OIL IN BOXES."

Mr. F. H. Lescher said he appeared on behalf of the drug and chemical section of the London Chamber of Commerce. Castor-oil in boxes was a very important article with them, it was usual to have 4 tins in a case— 4 40-lb. tins. Almost the whole of the oil imported into England, was sent in that way, for the trade objected to the article being put in Class 4. A great deal that they sold and sent out was as drugs in hampers, which went of course in Class 4. But they also sent out a good deal—some hundreds of cases—either for medicine or lubricating purposes, in these boxes. He found that for lubricating machinery, the Clearing-house classification was Class 2—at least so the railway companies said, but they were not quite accurate, because on page 50 of the clearing house classification it was really in Class 1. The railway companies had met the objections of the wholesale druggists in a remarkably fair way, and he presumed that what they meant was that the original packages should be in Class 2, but that when divided, small tins or little boxes or cases should be in Class 4; that would be fair, but when it was sold in the original cases, as it came over to England simply soldered in 4-tin cases, it ought not to be in Class 4. Much of the oil imported was sold at 24*l.* per ton. The article for lubricating purposes and for medicine was the same thing, the only difference was that one was a little whiter. Formerly the traders were able to send cases of 4 tins in Class 1, and that was what they wanted now. He thought the railway companies should be required to explain why boxes, formerly in Class 1, should now be placed in Class 4.

Mr. Wilkinson (Great Western Railway Company) defended the proposed classification. Mr. Lescher had not stated quite correctly the Clearing-house classification. The 2nd Class article was put in especially at the desire of the traders in order to enable them to introduce castor-oil for lubricating purposes.

Lord Balfour of Burleigh: What do you call the 2nd Class article?

Mr. Wilkinson: Castor-oil for lubricating machinery in tins, packed in wooden cases.

Mr. Lescher: At present it is in Class 1.

Mr. Wilkinson was sorry he had made a mistake. It was in Class 1; and so far as oil for lubricating purposes was concerned, the companies would be glad to keep it in Class 1, but he thought that the whole of these oils should go into Class 2. They did not want to carry a very valuable drug under Class 2. The definition "for lubricating machinery, in tins packed in wooden cases," was insufficient. Traders took advantage of the railway companies if they got the opportunity, and would send an article under one definition that was intended to be included in another.

Mr. F. H. Lescher: May I make a suggestion? With regard to the value of the article, we sell a good deal for lubricating purposes and for medicine. The article for lubricating purposes is the lower one, and formerly cost 22*s.* 10*d.* a cwt.; now it costs 35*s.* The very best is worth 38*s.* 6*d.* The medicine and the lubricating castor oils are the same thing. I would suggest that the classification should be amended by putting in "in casks or iron drums, and tins in boxes in Class 2," or even in Class 3. But I cannot understand why it should be raised from Class 1 to Class 4.

"CITRIC ACID."

Mr. Howard: I appear on behalf of the Druggists' Section of the London Chamber of Commerce. Citric acid is now in Class 3 along with tartaric acid. It is proposed to put both in Class 4. Now drugs in casks are to be put in Class 3, and I think there can be no doubt that citric acid is a drug according to the ordinary nomenclature of the trade.

Lord Balfour of Burleigh asked what the railway companies had to say about the article.

Mr. Wilkinson said it was a very valuable article. The price quoted by the Army and Navy Stores was 2*s.* per lb., or 224*l.* per ton. The present powers of the railway companies were, of course, their highest, and they thought that in proposing Class 4, which, until quite recently, was the class in the Clearing-house classification, they were proposing what was fair and reasonable.

Lord Balfour of Burleigh: Is it carried at all except in casks and cases?

Mr. Wilkinson said that it was largely carried in crystals for use in manufactories, but he did not understand how it was used.

Mr. Howard; It is used very largely in dyeing; it is used also in the preparation of aërated drinks, and in that way really for food. It is certainly used in commerce. The price of 2*s.* per lb., which Mr. Wilkinson mentions, is the retail price. I should be very happy to sell it largely at two-thirds of that price. I have known acid drinks made with oil of vitrol, but that would hardly be considered a valuable chemical. We only ask for the present Clearing-house classification, and certainly these acids were never cheaper than now.

Pharmaceutical Society of Great Britain.

COUNCIL MEETING.

THE Council met at 17 Bloomsbury Square, W.C., on Wednesday, at 11 A.M., Mr. Michael Carteighe, president, in the Chair. The following members were also present:—Messrs. Abraham, Allen, Atkins, Bottle (Vice-president), Cross, Evans, Gostling, Greenish, Hampson, Harrison, Hills, Leigh, Martin, Martindale, Newsholme, Robbins, and Southall. Messrs. Richardson, Schacht, and Watt were absent.

After the minutes had been read and approved, the PRESIDENT read the names of those persons who were desirous of

RESTORATION AND ELECTION.

A few chemists and druggists wished to be restored to the register, from which they had allowed their names to drop off, and, having paid the guinea fee, their wish was of course complied with. Then there were a few restorations to the Society, and a number of elections, including the young men "whose names are very well known in pharmacy"; and the President was "glad to say that they did credit to the body to which they belonged." Diplomas were granted to the persons who passed the Major examination last month.

THE NORTH BRITISH BRANCH

was the next item on the agenda, the report of the executive being received and entered in the minutes. In it were described at some length the various things which the executive have done since their election in June, 1889, and which have been reported in this journal as they occurred. After touching on the examinations, the executive proceeded to thank Professor T. R. Fraser for opening the session of evening meetings, and the gentlemen who had read papers, but "It is becoming increasingly difficult to obtain a supply of suitable communications for these meetings, and the Executive regret to say that from this and other unavoidable causes they found it impossible to carry out their intention of having meetings in December and January."

The circulation of books showed an increase from 874 to 1,114. The circulation consists mainly of new and standard works recently added; the demand for some of these being so great that several readers have frequently to wait their turn. The circulation of books to provincial chemists shows a slight increase as compared with last year. During the year seventy-nine volumes were circulated to readers outside Edinburgh and Leith, as compared with sixty-five the year before. More shelves are required for the library. The museum is in a satisfactory state. The number of visitors during the year was 3,026, as compared with 3,213 in 1888–9. After spending 21*l.* on cleaning and painting, the executive report that the whole property and furnishings of the Society in Edinburgh are now in good order.

The Council went into committee for a few minutes on this report, and on resuming the PRESIDENT said it was very satisfactory to know that the executive took so much interest in the details of the work of the Society, and it was a fact they could feel proud of that the Society was as well represented for Scotland in Edinburgh as it was in London. There was one thing he would like to remind his friends in the North about. When the new house was acquired in Edinburgh, these friends had promised to get more subscribers to the Society. There was no mention of this matter in the report, but he would like if the promise were carried out. (Hear, hear.)

FINANCE.

The report of the committee showed that on April 30 there were balances in hand on the General Fund account of 1,002*l.*, on the Benevolent Fund account of 979*l.*, and on the Donation account of 61*l.* The receipts on the General Fund were from dividends, fines, examination-fees, and, mainly, subscriptions. The committee recommended payments amounting to 1,816*l.*, the whole of which, with the exception of two small sums, being of a routine character (salaries, &c.). The Benevolent Fund received a large amount in subscriptions last month, and in moving the adoption of the report, the PRESIDENT congratulated local secretaries on the success of their efforts in this direction. Otherwise there was nothing said which requires reporting.

BENEVOLENT FUND.

Eleven applications for relief were considered. One grant of 15*l.* was made, four of 10*l.*, and four of 5*l.* Two were not entertained. The death of Mrs. Augustus Jones was reported, also of Mr. Atherton, of Liverpool. Both were annuitants, the latter of fifteen years' standing.

Mr. ATKINS said he had received a letter from a gentleman in a high position, who spoke in a grateful manner of the benefit which the annuity had been to Mrs. Jones.

Mr. EVANS had heard something the same said, and the PRESIDENT remarked that it was satisfactory to know that their efforts were appreciated.

THE LIBRARY, &C., REPORT

was very formal. Following it came some particulars about the *conversazione* which is to be held on May 20 in the Society's own premises. Guests are to be received in the examination-hall, where the President and members of Council will take their stand, and in the same room the band of the Coldstream Guards will give some music. Mr. John Foster will have a glee-party in the lecture-theatre, and there will be more than one concert. Refreshments will be served in the old examination-rooms, and in a room in the new premises. Arrangements are to be made to have some objects of interest in the museum and elsewhere. There was some talk about the affair. The PRESIDENT said he would look upon it as a want of loyalty to the Society if any member came without *a* lady. He did not contemplate members bringing more than one lady—ladies should not come unattached. (Laughter.) Ladies who were members or associates of the Society would manage that difficulty for themselves. (Renewed laughter.)

GRANTS IN AID OF EDUCATION.

An application from the Nottingham Chemists' Association for a grant to aid them in their efforts on behalf of education was referred to committee; the PRESIDENT, however, before it went there, complimented the Nottingham chemists on the excellent educational work they had already done. He knew it was good, for he had examined some of the students himself.

Mr. EVANS said there was some intention to start technical colleges in his district, and he asked if he could hold out any hope to the authorities that they would be assisted by the Society if they put up certain laboratories.

The PRESIDENT, in a guarded manner, replied that what the Council had done was to supplement local colleges by providing the means for such things as materia medica collections, dispensing laboratories, and so on, so as to make the general education of the country suitable for pharmaceutical purposes.

SCHOOL OF PHARMACY PRIZES.

Examinations for prizes were held at the end of the six months' session.

Practical Chemistry.—Professor Attfield reported that 31 students entered from his class. The following three were successful:—(1) J. C. Umney, bronze medal; (2) E. B. Sherlock, (3) E. Boucher, certificates of honour.

Chemistry and Physics.—There were 19 candidates. (1) E. Boucher, bronze medal; (2) E. B. Sherlock, (3) H. W. Kilby Pears, certificates of honour.

Botany.—Professor Green reported satisfactorily on his class, the following being the best men:—(1) E. Boucher, bronze medal; (2) H. W. K. Pears, (3) H. H. Stureh, certificates of honour.

Materia Medica.—Seventeen entered for the bronze medal offered, and as Mr. H. W. K. Pears had no error in his paper he took it.

Pharmacy.—Mr. Pears also gained the bronze medal in this class.

The Secretary reported the results of the professional examinations last month.

The Sale of Methylated Spirit.

The President stated that he had received a number of letters regarding the new regulations which were proposed to be enforced by the Customs and Inland Revenue Bill regarding the sale of methylated spirit in not less than reputed quart bottles. One of the correspondents (Mr. Wilkinson, of Manchester) pointed out that a large number of the sales were in much smaller quantities. The matter had been considered by the General Purposes Committee the previous night, and he (the President) was deputed to see the Commissioners and the Chancellor of the Exchequer regarding the matter He would say that the proposed change was dangerous to the public and to the Excise itself, for as one of the objects of the Revenue was to prevent tippling with this spirit, and as there was now a strong feeling in the House of Commons against this habit, it would seem that by supplying it in larger quantities than were required for legitimate purposes, they tended to defeat the very object which was aimed at. Moreover, the provision whereby methylators were permitted to sell the spirit in 5-gallon quantities, put up in quart bottles, would tend to make the spirit a sort of proprietary article, and it was conceivable that that would have a disastrous result in increasing the illegal consumption of methylated spirit. His intention was to urge upon the authorities that smaller quantities than a reputed quart were a necessity, and he would point out that chemists and druggists, being registered and educated men, could safely be trusted with the retail of such quantities, and it was desirable from a medical point of view to give such facilities, otherwise there would be a tendency to take advantage of the permission to sell small quantities of medicated pure spirit, and this would be very undesirable.

Mr. Hampson considered that it was an un-English thing to interfere with the quantity sold. Small quantities of methylated spirit were frequently required for really good purposes, as by the student of chemistry and by the artisan. He thought that pressure should be brought upon M.P.'s by getting local secretaries to telegraph to their representatives. It was an urgent matter, and they should act quickly and with all their power.

Mr. Harrison said that the proposal would increase the illegal consumption of the spirit, for the methylators would take the chance to get the quart bottles of spirit placed in the hands of any person who would take out a licence, so that it would become in a sense popularised. This was the fatal objection to the proposal, but it was equally bad to impose a hardship on small consumers.

Mr. Atkins agreed with these sentiments, and believed that great evil would result to the trade; in fact, the sale of the spirit would go out of the hands of druggists altogether.

Mr. Hills had been informed by a gentleman who knew all about the tippling in methylated spirit that there was no tippling amongst persons who bought small quantities at a time. It was the quart-bottle people who did that.

Mr. Bottle considered that the 33rd clause of the Bill would permit publicans and wine-sellers to sell the spirit, and that was most dangerous. Mr. Allen supported this notion; but Mr. Southall pointed out that publicans would not get the methylated-spirit licences, and Mr. Hampson backed up this view. Mr. Abraham expressed a doubt as to whether a retailer could keep the spirit in bulk as well as in bottles, but the President satisfied him that he could. Mr. Martindale said that it would be a great hardship to travellers if they could not get a small quantity of spirit when they wanted it. Mr. Gostling also spoke, and Mr. Evans urged immediate action in the direction suggested by Mr. Hampson. He thought every M.P. should have a circular, stating the objections to the Bill, signed by chemists who are their constituents. The time is short for that, said the President, but the best would be done, and he would go down to the House of Commons on Thursday and do his best.

New Chemists.

Thomas Briers, of Southgate, and John Giles Hoyle, Corporation Street, Clitheroe, have declared that they were in business as chemists and druggists before 1868, and, having paid 5*l.* 5*s.* each, their names have been placed on the register.

Examination in Pharmacy Law.

The President reported that the Board of Examiners for England and Wales think that Minor candidates should be examined in pharmacy law, and suggest that by-laws to permit such examination should be passed. The Scotch Board expressed no opinion on the point. The President added that for one reason and another the amendment of the by-laws had been delayed, but they would have to do that very shortly now—possibly at the time they were proceeding with a Pharmacy Bill.

This was all the public business, the Council going into committee to consider the annual report, of which a copy is appended.

FORTY-NINTH ANNUAL REPORT OF THE COUNCIL.

The Council, in presenting the forty-ninth annual report and the financial statement for the year 1889 has to record that the income for that year has exceeded the ordinary expenditure for the year. The sum of 3,440*l.* has been paid on account of the contract for rebuilding 15 and 16 Bloomsbury Square, to meet which 3,000*l.* stock has been sold, the remainder being temporarily defrayed out of the current account.

It is satisfactory to note that the Journal account shows a favourable balance, the amount received for sales and advertisements having exceeded by more than 100*l.* that dishursed for the production of the "Journal and Transactions."

Rather fewer candidates presented themselves for the Minor examination, the number being 1,013 as against 1,091 in 1888. On the other hand it is gratifying to observe a large increase in the number of Major candidates, 138 having entered for the higher qualification. There have been 5 candidates for the Modified examination during the year. The candidates for the first, or Preliminary, examination numbered 1,351—a decrease of 42. The rejections still constitute more than 50 per cent. of the candidates examined, and exhibit in a marked degree the absence of systematic training among those presenting themselves.

The reports on the Society's examinations by the Government Visitors were presented to the Council last month and have been published. They show, conclusively, that most of the failures in the qualifying examination are due to defective training, and both Sir Douglas Maclagan and Dr. Stevenson lay stress on the necessity for insisting on a higher standard of general knowledge in the preliminary examination. Sir Douglas Maclagan, whose report covers a period of four years, demonstrates with a lucidity which leaves nothing to be desired what an immense boon to the candidate a curriculum would be.

It has been considered desirable that a larger number of standard works than formerly should be retained in the library for reference purposes, and a list of them has accordingly been prepared for the guidance of the librarian. It has also been decided that the outward carriage of books to country members should invariably be paid by the Society, leaving the cost of return to be defrayed by the borrower. The number of books added during the past year has been slightly below the average; there having been fewer works of importance published. The attendance in the library and the circulation of books have been well maintained.

The attendance in the Museum shows a large increase, and affords satisfactory evidence of the value in which this department of the Society is held by students and others. The donations to the museum and the herbarium have been fully as numerous as in past years; whilst not a few among them possess especial interest. During the year a number of duplicate specimens have been distributed to local associations, and the Council has also granted in several cases the loan of articles from the museum for the purpose of illustrating lectures and papers.

The open meeting in October of the Session 1889-90 of the Society's School of Pharmacy was attended by a large number of persons, who accorded a hearty reception to an address by Professor John Marshall, F.R.S., President of the General Medical Council. This meeting was invested with additional interest by the presentation to Professor Gustave Planchon of the Hanbury Gold Medal, which is awarded biennially for distinguished work in connection with original

research in the chemistry and natural history of drugs. Dr. Planchon is the director of, and a professor in, the School of Pharmacy of Paris, and his name has been for some years on the roll of honorary members of the Society.

The alteration in the course of instruction in the Society's school referred to in last year's report—viz., the extension of the course from five months to ten months—has worked most satisfactorily, and seems to be appreciated. The number of students attending the school is greater than in many previous years.

The evening scientific meetings, both in London and Edinburgh, have maintained their standard of interest. The number and value of the papers read during the year and the attendance bear very favourable comparison with any former period. In London the communications from the Research Laboratory have been especially appreciated, and in Edinburgh the opening lecture by Professor T. R. Fraser, F.R.S., was a most important and valuable contribution on the education, training, and examination of the future pharmacist.

From the report of the Research Committee for 1889, presented to the Council in February last, it will be seen that many valuable investigations have been completed during the year, under the able direction of Professor Dunstan and the demonstrator, Mr. Dymond; while others of no less importance and interest are in progress. An addition to the number of workers will probably be made at the end of the current session, as the educational training afforded is attracting a larger number of the Society's advanced students. The influence of the Society is being steadily advanced by the character and completeness of the work done; and it is not without significance in this connection that a communication has been received from Dr. Quain, the Chairman of the Pharmacopœia Committee of the General Medical Council, stating that it is intended to prepare an addendum to the Pharmacopœia, 1885, and inviting your Council to co-operate with the Pharmacopœia Committee in the preparation of that addendum. This communication has led to the appointment of the following committee:—The President, Vice-President, W. Inglis Clark, D.Sc., C. Ekin, S. Gale, Henry G. Greenish, N. H. Martin, W. Martindale, and Charles Umney.

The houses, Nos. 15 and 16, Bloomsbury Square, which came into the possession of the Society at Lady-day, 1889, have been pulled down and are nearly rebuilt. Although not yet quite finished, No. 16 is sufficiently advanced to be used on the 20th instant, when it is proposed to hold a *conversazione* in the Society's premises of a somewhat similar kind to that formerly held at the South Kensington Museum, and to which ladies are invited. It is proposed to transfer the secretary's offices to the ground floor of this house in the autumn. The house No. 15 is to be let, and will become a source of revenue to the Society.

The report of the Executive of the North British Branch, presented this month, shows satisfactory progress in all the departments of the Society's house in Edinburgh. The museum and library are stated to be much used, and the educational advantages placed at the disposal of the younger members and associates appear to be highly appreciated by them.

The divisional secretaries for London have met in conference with members of the Council on two occasions during the year, and the interchange of views and discussion of suggestions which have taken place have proved of great value to the Council.

With a view to infusing, if possible, more interest into the appointment of local secretaries, the Council has decided to issue the nomination-papers in October, instead of sending them with the annual report and Council voting-papers in May. It is of the utmost importance that the most able and energetic men available should be selected for the office of local secretary, so that nothing which may tend to the interest of pharmacy may be allowed to pass unheeded. It is felt that no approach to the unity generally desired can be secured unless the members and associates in business select in their respective localities as officers of the Society men who will loyally use their best efforts to promote the interests of the Society.

During the year 193 cases of infringement of the provisions of the Pharmacy Act have been dealt with by the Registrar. In 34 of these cases it was necessary to institute proceedings against the offenders to ensure obedience to the law.

Prosecutions for the recovery in each case of more than one penalty have been instituted with success against the sellers of poisons in the shops of four limited liability companies. The unqualified sellers were shareholders, and the companies had been obviously formed for the purpose of evading liability to penalties under the Pharmacy Act. The penalties and costs in these cases have been substantial, and it is hoped that the institution of these proceedings may act as a warning to the owners of such companies. By the judgment in the case of the Pharmaceutical Society *v.* Wheeldon, the legal process for the recovery of penalties from offenders of this kind will be facilitated.

The appeal in the Wheeldon case, full particulars of which have been reported in the Journal, was argued in February before Mr. Baron Pollock and Mr. Justice Hawkins. The formal judgment, which was reserved, was delivered by Mr. Justice Hawkins on April 29. A full report of this important and carefully considered judgment was published in the Journal of May 3, and it will be noticed that the judges had so much confidence in their interpretation of the true intent and meaning of the Pharmacy Act, that they declined to allow a further appeal.

Two memorials have been received by your Council, requesting that the Inland Revenue authorities should be approached with reference to inconsistency in the present administration of the Medicine Stamp Acts. The subject has received long and earnest attention, and the President has had several interviews with the authorities at Somerset House. The communications between him and the Board of Inland Revenue have been published in the *Pharmaceutical Journal*, from which it will be seen that the Board has declined to make any alteration in its mode of dealing with exemptions from medicine-stamp duty.

In the last annual report mention was made of a memorial on railway rates, which the Council had drafted for presentation to the President of the Board of Trade. The memorial in question was forwarded in due course, and there is reason to believe that the representations therein contained have received the favourable consideration of the department.

The Pharmacy Act Amendment Bill introduced last year into the House of Commons shared the fate of many other Bills introduced by private members, having been pressed out at the end of the session. In February of this year the Council considered and ultimately approved of, a new Bill, having for its objects the consolidation of the Society, by granting the privileges of members to associates in business, and the restriction of the compounding of medical prescriptions to registered persons, in addition to those provisions contained in previous Bills dealing with education and examination. The president, in making the preliminary arrangements for its introduction into the House of Commons, found that an active opposition from certain members of the trade had already commenced on the ground that the Bill did not go far enough. The Council, on hearing of the impossibility of making any progress in the House in the present deadlock of legislation, unless there was a prospect of an agreement among those who were to be benefited by it, decided not to proceed in Parliament with the Bill during the present session. It now rests with the members and associates to consider and discuss it, so that the new Council may be in a position to know what measure of support will be accorded to a similar Bill, if introduced next session.

There has been a slight diminution in the annual subscriptions to the Benevolent Fund. In 1888, the sum of 1,500*l.* was subscribed, while the amount last year only reached 1,477*l.* The amount expended in the payment of annuities and in grants to persons needing temporary assistance has, however, remained nearly the same, 2,081*l.* having been thus distributed. Four additional annuitants were elected in December last. Two legacies have been received during the year; one of 100*l.* under the will of the late John Williams, and the other of 19*l.* 19*s* from the executors of the late Richard Forrest. The desirability of subscribing to one or more orphanages has been under the consideration of your Council, and the alternatives of becoming either annual subscribers, with the privilege of voting at each election, or of purchasing the right to place a child in an institution

without election have been discussed. After examining the information furnished from a number of orphanages and kindred institutions, the Council concluded that it was not desirable to adopt the first course, and that the financial condition of the fund precluded the adoption of the second at present.

Some changes have to be recorded in the list of officers of the Society. Mr. Savage, who had been a member of Council for twenty-eight years, did not offer himself for re-election in May last, and by his retirement the Council lost an able member. Mr. Hodgkinson, for so many years an auditor of the Society, was unable, through ill-health, again to offer himself for that position, and Mr. W. K. Hopkin also retiring, two vacancies were left in the list of auditors. These have been filled by the appointment of Mr. Charles Umney and Mr. Francis Yates.

The death-roll contains many prominent names. Wm. Valentine Radley and James Slipper (former members of the Council), Harold Woolley, James Crispe (a former auditor), Henry Allen and E. E. Morrall (Bell scholars in 1877 and 1884 respectively), Richard Forrest, J. G. Shirley, F. W. Haydon, Edward Davenport, Wm. Smeeton, and Charles Croyden are among those whose loss we have to record. The Society has also lost by death the services of the following Local Secretaries:—Alfred Badger (Barnsley), W. Willan (Preston), W. W. Broom (Exeter), W. G. Jackson (Hartlepool), W. H. Harrop (Crewe), G. R Galloway (Inverness), and John Phillips (Newport); also of two Divisional Secretaries, T. O. Sandall (Fulham) and George Balls (Deptford).

The loss of an honorary member has also to be recorded in the death of Dr. Owen Rees, who was elected in 1856.

In conclusion, it is interesting to note that the Society has entered its fiftieth year, having been founded in March, 1841, and next year it will be a question as to the most fitting way for the Society to celebrate its jubilee.

FINANCIAL STATEMENT FOR 1889.

Receipts.

	£	s.	d.
Balance January 1, 1889:—In Treasurer's hands	1,728	3	11
In Secretary's hands	118	2	4
In hands of Chairman of Executive (Scotland) ..	36	3	1
Life Members' Fund:—Interest	84	1	10
Interest on Investments	412	3	2
Subscriptions:—1,459 Members, Pharmaceutical Chemists ..	1,531	19	0
638 „ Chemists and Druggists ..	638	8	0
1,226 Associates in Business	1,287	6	0
892 Associates not in Business	468	6	0
904 Apprentices or Students	474	12	0
9 Entrance Fees	18	18	0
Fees paid upon Restoration to the Society	14	3	6
Examination Fees:—1,319 Preliminary Examination	2,378	14	0
4 Modified „	4	4	0
1,048 Minor „	2,823	10	0
139 Major „	635	6	0
Registration Fees:—25 Fees for Restoration to the Register..	26	5	0
3 Registration Fees as Chemists and Druggists	15	15	0
Journal:—Advertisements	4,323	2	7
Sales	336	11	3
Register:—Sales to the Government	147	10	0
Sundry Sales	15	0	0
Calendar:—Sundry Sales	21	1	6
Penalties and Costs for Infringements of the Pharmacy Act..	225	0	3
Rent of Stable in rear of 36 York Place, Edinburgh	18	18	8
„ 16 Bloomsbury Square to Midsummer, 1889	29	5	0
Sale of £3,000 2¾ Consols	2,912	9	0
Total	£20,724	19	1

Expenditure.

	£	s.	d.
Annuities:—Professor Redwood	100	0	0
Mr. Elias Bremridge	400	0	0
Carriage of Books, and other Parcels	22	12	3
Certificates of Death	19	5	8
Evening and other Meetings..	58	16	5
Examiners, Boards of—			
ees to Examiners—England and Wales	1,562	8	0
Scotland	475	13	0
es to Superintendents, Preliminary Examination—			
England and Wales	212	12	6
Scotland	31	10	0
Expenditure—*cont.*	£	s.	d.
Hire of Rooms for conducting Preliminary Examination—			
England and Wales	68	19	6
Scotland	7	1	6
Travelling Expenses—England and Wales	222	1	6
Scotland	26	2	6
Refreshments for Examiners—England and Wales	78	8	1
Scotland..	22	13	3
Apparatus, Drugs, and Chemicals for Examinations and sundry charges in connection therewith—England and Wales	140	8	2
Scotland	16	18	3
Fees to the College of Preceptors..	174	17	0
Fixtures and Fittings	25	8	0
Furniture	5	14	0
House Expenses:—Gas, Water, Coal, Cleaning Materials, &c.	287	16	1
Journal:—Editor and Sub-Editor's Salaries	750	0	0
Paper	753	13	5
Printing	2,019	4	2
Publishers' Commission..	534	12	3
Contributions and Engraving	303	11	7
Reporting	88	18	0
Attending Conference and other Meetings	51	9	6
Parliamentary Papers and Sundry Charges	34	14	0
Lectures:—Emeritus Professor of Chemistry and Pharmacy..	100	0	0
Emeritus Professor of Botany and Materia Medica	100	0	0
Professor of Botany—Endowment of Chair ..	150	0	0
Professor of Chemistry—Endowment of Chair ..	150	0	0
Teacher of Practical Pharmacy	50	0	0
Subscription to Royal Botanic Gardens	21	0	0
Lecturers' Attendants	80	19	6
Laboratory:—Professor of Practical Chemistry—Endowment of Chair	150	0	0
Apparatus, Chemicals, Diagrams, and Specimens for Lecture Classes, Prize Medals, Certificates, &c.	122	4	10
Printing and Posting Prospectuses..	26	10	9
Law Costs	375	15	1
Library:—Librarian's Salary	240	0	0
Purchase and Binding of Books	105	3	4
Catalogue	110	8	10
Museum:—Curator's Salary	350	0	0
Assistant's Wages	55	4	0
Specimens and Sundries	43	15	11
Expenses in Scotland:—Assistant-Secretary—Salary	150	0	0
Taxes	33	5	11
Travelling Expenses—Members of Executive	21	9	
Cleaning, Service, and Miscellaneous Expenses	154	16	9
Postage:—General	212	13	1
Journal (Cost of transmission to Members, Associates, and Apprentices)	686	0	2
Register, Printing and Publication..	158	13	7
Repairs and Alterations	330	3	6
Rent, Taxes, and Insurance of Plate Glass	584	13	9
Stationery, Engraving, Printing, and Office Expenses	265	18	4
Calendar—Printing and Publication	125	1	9
Salaries:—Secretary and Registrar	450	0	0
Clerks	765	18	0
Research Laboratory	290	0	0
Cost of Materials supplied to the Jacob Bell Scholars	10	0	0
Herbarium and Council Medals	7	17	6
Sundries	4	19	0
New Premises:—Galen Place—Architects' Fees..	178	12	0
15 and 16 Bloomsbury Square—			
Kirk & Randall, Builders ..	3,000	0	0
Architects' Fees	150	0	0
Purchase of Old Materials ..	38	0	0
Clerk of Works, Wages, &c...	73	18	0
Travelling Expenses—Members of Council	427	5	2
Refreshments for Council	40	12	0
Balance, December 31, 1889:—In Treasurer's hands	1,493	19	10
In Secretary's hands	30	13	8
In hands of Chairman of Executive (Scotland)	100	15	9
Total..	£20,724	19	1

The Benevolent Fund account shows receipts from subscriptions 1,477*l.* 15*s.* 9*d.*, from investments 878*l.* 10*s.* 11*d.*, which, with the balances from the preceding year (249*l.* 9*s.* 1*d.*), make 2,605*l.* 15*s.* 9*d.* on the debit side of the account. On the credit side we find 1,679*l.* 10*s.* put down for payments to annuitants, 369*l.* for casual relief, casual and Robbins' grants 15*l.*, 43*l.* 2*s.* 2*d.* for working expenses, and a balance of 481*l.* 3*s.* 7*d.* In addition to subscriptions

and interest, the fund received 355*l.* 19*s.* in donations and legacies, and invested 393*l.* 12*s.* 6*d.* in consols. The investments of this fund amount to 23,638*l.* 0*s.* 4*d.*, all but 2,950*l.* of which is in ground-rents. 230*l.* is separately invested.

The investments of the general fund amount to 30,954*l.* 10*s.* 2*d.* 10,000*l.* of this is in consols (including 3,000*l.* "life members' fund"), 5,551*l.* 5*s.* 6*d.* in ground-rents, and the rest in the Edinburgh and London premises, which are put down at cost—viz., 1,931*l.* 10*s.* for the former, and 13,471*l.* 14*s.* 8*d.* for the latter, which is not yet complete. In addition to the foregoing, there is invested in the Society's name 3,166*l.* 8*s.* for special purposes, such as the Bell Scholarships.

No. 16 BLOOMSBURY SQUARE.

The plot of ground with two old houses upon it in Bloomsbury Square, which the Pharmaceutical Society acquired from the Duke of Bedford about four years ago, is now occupied by a very handsome building, which is almost ready for occupancy. The Council would have been glad to have occupied the whole building, but they are not rich enough for that at present, and have resolved to let No. 15 as a dwelling-house, at a rent of about 250*l.* a year. No. 16 will be devoted almost solely to Council purposes.

The structure is built in red brick, with Bath stone facings, and consists of four floors and a basement. The architectural style is pleasing, the uniform dullness of the Square being decidedly relieved by the imposing bow windows which appear on the ground and first floors. Entering from Bloomsbury Square, we find a small hall leading to the office, which is of extensive dimensions, and will accommodate a large number of clerks. The vestibule and passages are laid with mosaic pavement. A counter will run from front to back of the office, so that from the street door it will be a straight line through to the ground floor of the examination-hall at the back, now connected by a well-lighted and ample vestibule. Immediately behind the office is the secretary's room, which is commodious, but has not a very nice outlook. We notice in passing up the staircases that the walls are finished with a dado of parti-coloured glazed tiles. The principal apartment on the first floor is the council-room, and at the present stage of its advancement it promises to be a magnificent chamber. It is square, lofty, and the woodwork (including dado) is of oak. The room is well lighted, and the ventilation arrangements seem to be perfect. Behind this is a spacious ante-room, which may be used as a committee-room or otherwise. The front room on the second floor is to be used as a committee-room; it is the same size as the council-room, but is not so lofty, and will not be so gorgeously finished as the latter. There are two rooms *en suite* at the back, which are to be used by the president of the Society, one as a reception and business room, the other as a retiring-chamber. The third floor has luncheon and smoking rooms, and one or two small rooms for odd purposes.

The basement floor contains a room for the clerks, a strong-room, stationery-room, and several lavatories and the like. There is a lift which connects the office with this floor for the purpose of conveying books, &c. We noticed that the sanitary arrangements throughout the whole building are very good; efficient ventilation is a feature, and the water-supply has been laid on in such a way as to be efficient in case of fire and independent of the public hydrants. The ground floor is connected with the old building by a door passing into the lecture-theatre, and several doors at the basement provide further inter-communication, while, as we have already stated, there is a passage to the examination-hall.

The predominating colour of the painting, when finished, will be a pleasant cream, but the final touches will not be given until after the *conversazione*.

We understand that provision has been made for illuminating the building with the electric light if the Council desire it, as soon as the supply comes round to that quarter. Altogether the new premises are substantial, elegant, and ample for the purposes to which they are designed.

Caffeine in Guarana.—From an examination of forty specimens of guarana, Nagelvoort arrives at the conclusion that the amount of alkaloid in the drug varies from 3·5 to 6·5 per cent.

Trade Notes.

Liebig's Extract of Meat Company (Limited) recommend a final dividend of 20 per cent., making, with the interim dividend, 25 per cent. for the year 1889.

A Beautifully-illustrated Catalogue of aërated-water machinery has just been issued by Messrs. Hayward, Tyler & Co., of Upper Whitecross Street, E.C. It deals with every requisite of the trade.

Messrs. G. Vogt & Co. offer a novel idea in ladies' memo.-books to those who stock their perfumes. The book is in the shape of a bottle of "Scent of the Lilies" and has six leaves of paper, which can be opened to form a tiny fan or a series of memo.-tablets.

Dr. Heinrich Byk, chemical manufacturer, of Berlin, announces that Mr. George Bernstein, 8, Crutched Friars, has ceased to represent him, and that he has transferred his agency for England and Ireland to Messrs. R. W. Greeff and Co., of 29, Mincing Lane, E.C., and for Scotland to Mr. H. J. Thomson, 181, West George Street, Glasgow.

Warranty by Wholesale Houses.—Messrs. Evans, Sons & Co., Liverpool, and Evans, Lescher & Webb, London, have issued to their customers a circular, which we presume is intended to be a legal warranty of all the pharmaceutical preparations which they supply. The circular is thus expressed: "As it has been publicly announced that chemists should obtain a warranty with all goods supplied by their wholesale house, we beg to remind our customers of the fact, which is already well understood by the majority of them, that all articles labelled by us according to the nomenclature of the British Pharmacopœia are warranted to conform to that standard. Unofficial preparations are labelled with a distinctive nomenclature indicating the nature of the article, as 'Tinct. Rhei. Co. P.L, Tinct. Opii Aquos,' &c., &c. We venture to remind our customers that when articles are demanded under the B.Ph. name or B.Ph. synonym (whether Latin or English), it is only lawful to supply those made in accordance with the B.Ph. 1885. We need scarcely add that we are always prepared to defend the quality of our articles as being strictly in accordance with the description on the label."

Personalities.

Dr. E. R. Squibb, of Brooklyn, is now on a visit to Europe.

Mr. G. G. Green, of Woodbury, N.J., has some patent medicines for which he has been offered $2,000,000.

Mr. Blair, chemist, Pitlochry, Perthshire, has taken Mr. R. Gellatly into partnership, and the business will be conducted as Blair & Gellatly.

The address of Mr. C. M. West, whose name appeared in the list of those who had passed the Minor examination last week, should have been given as Retford, not Ketford as printed.

The business of the late Mr. Speight, 28 Circus Road, St. John's Wood, has been purchased by Messrs. G. J. R. Parkes & Co., of 196 Belsize Road, Kilburn, and in future will be conducted as a branch.

Mr. Charles Lever, the blind traveller, who is known to many in the drug trade, has lately undergone an operation by Dr. Bell Taylor, of Nottingham, the result of which is that he can see with the aid of spectacles.

Mr. Marshall Leigh, pharmaceutical chemist, was defeated at the municipal by-election which he has just contested at Brighton. His opponent, General Cavenagh, polled 668 votes, and Mr. Leigh scored 327.

The Shop Assistants' Holiday Bills.—Blundell Maple (to St. Lubbock, who is putting up the shutters of a shop): "Take care, clumsy. Do you want to smash the window? You're a nice practical man to get hold of a shutter; you'd better go home and leave the work to me."—*Moonshine.*

COUNCIL CANDIDATES.

A NUMBER of our friends throughout the country have asked us to give some personal particulars in reference to the candidates who are offering their services to the constituency. There are many difficulties in filling an order of this kind satisfactorily, though these ought not to exist in regard at least to the views and policy advocated by the various candidates. In the subjoined remarks, we have endeavoured to present, briefly and fairly, an outline of the ideas on the basis of which the votes of members of the Pharmaceutical Society are sought.

Of the retiring members of the Council separately little need be said. They have had plenty of opportunity of displaying their qualities, and they may rightly claim to be judged by their public careers. Messrs. Abraham, Atkins, Gostling, Greenish, Hampson, Hills, Leigh, Martin, and Richardson may be fairly described, from an outside point of view, as hearty supporters of Mr. Carteighe. We would be the first to recognise their distinctive qualifications if we were called upon to refer to them personally, but dealing with them politically we are bound to say that they have not made their individuality prominent in the Council of late years. So far as the business of the Council has been well conducted this solidarity is an advantage; it can only be complained of by members of the Society who are desiring what the theologians call a "change of heart." Of this there is no prospect from any of the candidates just named: so far as we know, they are all satisfied with their performances, and see nothing to repent of. We have heard that an influentially-signed manifesto in favour of Mr. Carteighe and his party is in course of preparation. We must wait until that is issued for a definite statement of the grounds on which we are to vote for this party.

MR. CARTEIGHE.

MR. HAMPSON.

Before passing from the gentlemen named, however, we may mention that several of them have courteously written to us in reply to our letters, and two of them have furnished us with intimations of their views.

Mr. A. C. Abraham, of Liverpool, thinks "that a widespread interest in the affairs of the Pharmaceutical Society is one of the essential conditions of its vitality, and that such interest can best be promoted by candidates explaining their views upon current topics." He remarks, however, that his views, "like those of all honest representatives, are not guaranteed to be unalterable, whatever argument may be brought forward on the other side." He is in favour of "a comprehensive measure which, while not ensuring certain defeat by attempting to disturb the vested interest of *bonâ fide* co-operative 'stores,' should check the spread of the evil in directions too well known to require mention," and would "deal boldly with the questions of the labelling of mixtures containing poison, whether patent medicines or otherwise, the 'branch' question, and the widows' and executors' clause." It should insist upon the qualification of the proprietor as an essential condition of the carrying-on of the business of a chemist and druggist, and he thinks there is room to make the provision of the old Act more explicit. He thinks the Pharmaceutical Society, having discovered an offender, should see that he does not offend again, and should not leave the invidious task to local men. Mr. Abraham also advocates the abolition of the medicine-stamp.

Mr. Marshall Leigh, who has served one year on the Council, is a pharmaceutical chemist in active business at Brighton. He is still a good way under 40, and is the proprietor of four pharmacies in the city by the sea, all his branches being managed by qualified men. As a provincial chemist in the midst of keen competition, Mr. Leigh claims to be fully alive to the disadvantages from which the trade suffers, but believes that no legislation for the good of the trade is possible so long as the large majority of retail chemists hold aloof from the only recognised body capable of obtaining legislative sanction to their wishes. He desires to strengthen the Society by broadening its basis and bringing in as voters many members of the trade who are now excluded, and rendering all associates in business eligible for election to the Council. He regards it as a totally erroneous belief that the present members of the Council are indifferent to trade interests. From his year's experience, he believes that "every member of the present Council has the best interests of the trade at heart; all are more or less personally interested in the welfare of the trade, and many are struggling against severe competition."

On the present Council there are now four ex-presidents of the defunct Chemists' Trade Association. We have already mentioned Messrs. Greenish and Hampson; Mr. Cross is not a candidate this year, and there remains Mr. John Harrison, of Sunderland. It is an argument which the party in possession are justified in using that all these four ex-presidents of the Trade Association—men chosen expressly, it may be assumed, for their ability to deal with trade interests—should be found to run in harness peaceably and patiently with colleagues who are charged with the neglect of those trade interests. Mr. Harrison, who was selected by the Council just a year ago to fill the place vacated by Dr. Symes, has been either convinced that the Council have done all that can be done, or he has been apathetic; certainly he has not fulfilled the anticipations which those who heard his extra-mural speeches had formed of him as a champion of trade interests. We have not, however included him in the presidential party, for the reason that he has on one or two occasions indicated an inclination to go a little faster than their pace. He also condemned in the Council the fatal and autocratic policy of planting their Bill on the trade without giving the smallest opportunity for consideration or discussion. In the remarks he sends us Mr. Harrison makes special allusion to this conduct, to which he traces to some extent the failure of the attempt. He strongly advocates the union of chemists, and believes that the broadening of the base of the Society proposed in the Bill would have tended to effect this. He adds: "I am not insensible to the fact that to many of our friends and critics the proposed legislation seemed of small consequence, and that they urge us to adopt what they would consider a more heroic programme. But we had to determine not only what was desirable, but

also what was practicable, and we considered that the consolidation of the Society which would have been effected would afford grounds for hope that in the future something beyond the right to 'compound or keep open shop for the compounding of medical prescriptions' provided in the late measure, might be sought for." Mr. Harrison also advocates the extension of the exemption from jury-service to all chemists and druggists, and the abolition of the medicine-stamp.

Mr. SCHACHT has taken an independent course on several occasions, though it must be added that he generally yields in the end "for the sake of unanimity." He was the principal author of the curriculum scheme, he opposed the prosecution of the unqualified chemist's assistant, and also objected to the vagueness in the recent Bill in reference to the person who should compound a medical prescription.

Mr. GWILYM EVANS, of Llanelly, has been three years on the Council, and has generally manifested "irreconcilable" tendencies. He has often opposed the majority, but has never taken up any strong line of policy in support of any particular trade interest. Now, however, his return is advocated by the self-styled "party of progress," by whom, it is understood, he has been persuaded to stand again after he had decided not to seek re-election.

Mr. ALFRED COLEMAN, of Cardiff, is, we judge, entitled to the chief credit or discredit, whichever it may be, of stirring up, or rather of focussing, the prevailing dissatisfaction which undoubtedly exists among the members of the Pharmaceutical Society. He has been in business in Cardiff on his own account since 1862, and served his apprenticeship in the High Street of that town, to his father, Mr. James Coleman, who was one of the founders of the Society. That business is still carried on by an elder brother, Mr. E. J. Coleman. Mr. Coleman, the present candidate, qualified as a chemist and druggist in 1874 (passing first in honours, and becoming Hill's prizeman), and passed the Major in 1875. Before going into business he lived for some years with Mr. G. W. Sargent, at Kensington, who has himself been one of the fomentors of the present insurrection, but who could not be induced to come forward as a candidate. Mr. Alfred Coleman and Mr. John Munday, the local secretary, have canvassed Cardiff for several years on behalf of the Benevolent Fund, and it is said that every chemist in that large town contributes something. But the canvassers have met with but scant sympathy with the Society as at present conducted, and one of them at least thinks he can do something to increase its popularity. It must be admitted that nothing very definite as to his programme has been revealed in the numerous letters which Mr. Coleman has sent to this journal; but we have gathered from those letters that the writer is a courteous controversialist, and a man of tact, intelligence, and modern ideas.

Mr. JOHN MORRIS BROAD enjoys the advantage of being still on the sunny side of forty. He was born in 1853, passed the Minor examination in 1870, and the Major in 1875. His father carried on a chemist's business at Hornsey Rise until his death in 1878, the present candidate having been in partnership with him for two years previously. Mr. J. M. Broad is now conducting three separate establishments. He has been elected a guardian for St. Mary's, Islington, five times, but has experienced previous defeat in the Pharmaceutical contest. The following is the outline of policy which Mr. Broad has sketched in reply to our inquiry:—"In favour of extending the franchise to associates not in business, and making associates in business eligible for a seat on the Council. Restricting as far as possible the sale of all drugs, chemicals, and compounds, to the qualified chemists. The exemption of registered chemists and druggists from jury service. A judicious curriculum of study for the Minor and Major. Of enforcing the present Pharmacy Acts in all respects. The press being present during all Council meetings. More just regulations as to patent medicines and licences imposed on chemists."

Of Mr. JOSEPH MALTBY we can only speak as a partner in the firm of Battle, Son & Maltby, of Lincoln. In that city he has long been prominently public as an alderman and justice of the peace. He was mayor in 1873, and has served in other capacities. He was for several years one of the officers of the Chemists' Trade Association, and we believe his assistance was much valued by his colleagues. Mr. Maltby endorses the joint manifesto, and does not further commit himself. Mr. Maltby is a chemist and druggist, qualified by having been in business before 1868.

Mr. HARRY NELSON BOWMAN SPINK is just 50 years of age, and has carried on business as a chemist and druggist at 3 Marsham Street, Westminster, for twenty-eight years. He came originally from Ipswich. Mr. Spink has figured somewhat prominently in the public affairs of our neighbouring city, where he has acted as poor-law guardian, churchwarden, vestryman, governor of the United Westminster Schools, commissioner of the Free Public Library, founder and president of the Ratepayers' Association, chairman of the local Board School, and chairman of a Sanitary Committee appointed by the Vestry. In 1885 he was elected at the top of the poll to represent Westminster on the London School Board, and at the next election, in 1888, his name again appeared in the same relative position. But he and a colleague had held some meetings in licensed houses, and this being an infringement of the Municipal Act, the two were subsequently unseated with the view of encouraging other candidates. Ratepayers of both political sides associated to pay Mr. Spink's expenses on this occasion. Mr. Spink has once or twice before unsuccessfully courted the pharmaceutical constituency, but he has not hitherto taken an active part in the politics of this community. He was a warm opponent of Civil Service trading, and gave evidence before the Royal Commission which dealt with that subject in 1879. He is a chemist and druggist, qualified by having been in business before 1868. A friend of his indicates the following as an outline of the policy he advocates:—"Knowing that there are many chemists who have a hard struggle for existence in consequence of the interference with their business by outside traders, he feels strongly that it is useless to help only by education a profession unless it can exist by substantial remuneration. He proposes (1) the immediate framing of a Poisons Bill with an extended schedule, entitling none but properly-qualified chemists to dispense, or vend poisons either separately, as patent medicines, or proprietary articles; (2) the selection of one of the profession to be returned to Parliament; (3) the stringent enforcement of the Pharmaceutical Acts in any case of infringement. When these are carried out, and the members see their Council in earnest in studying the welfare

MR. ROSS.

MR. GREENISH.

MR. SPINK.

of its members, a fresh vitality will result, both from numbers and influence, and the present dissatisfaction be removed."

We remark in regard to (1) that no new Act of Parliament is necessary for the accomplishment of the objects suggested; in regard to (2) that members of Parliament are not returned on the nomination of a profession; and that (3) may mean anything or nothing. It is certainly not desirable that the Act should be enforced in *every* case of infringement.

Mr. DAVID STORRAR, of Kirkcaldy, is just over fifty years of age, and has conducted his present business since 1861. He was a chemist and druggist in business before 1868, and has been a member of the executive of the North British Branch for a good many years, last year serving the office of vice-president. Mr. Storrar's platform was laid down in the paper which he read to the meeting of the Society, at Edinburgh, in March (reported in this journal, March 29, 1890). Therein he expressed a reasonably moderate demand for more protection. He thought the late Bill had some good points, but he did not think it went far enough. He condemned its promotion without first submitting it to the judgment of the trade, and while he regarded a curriculum as desirable, he did not think the present time opportune for its introduction. He did not advocate the claim of the chemists to sell all drugs, though he would demand the limitation of dispensing to chemists. He would not hesitate to put forward the claim that companies should not as such usurp the rights and titles granted exclusively to chemists. Mr. Storrar, we understand, thinks Scotland has a fair right to have two representatives on the Council, and in this view he seems to be supported by most of his colleagues on the North British executive.

Mr. NICHOLAS MALE GROSE, of Swansea, who qualified as a pharmaceutical chemist in 1869, offers us a very concise programme. He writes:—"My policy, speaking broadly, is to set our own house in order, by conforming to the provisions of the present Pharmacy Act, before seeking greater powers against outsiders. I would admit all men who have passed the Minor to the privileges now enjoyed by pharmaceutical chemists."

Mr. FREDERICK THOMAS PERCY WELLS is a pharmaceutical chemist who, we understand, has retired from active business. He was a resident for some years in South Australia, where he was engaged in other occupations, but both before and after his colonial career he has been engaged in the practice of pharmacy here. Mr. Wells showed himself an able controversialist at the annual meeting of the Parmaceutical Society last year, though it must be admitted that the grievance he chose for attack—the trading by pharmacists under old-established and not accurate firm names—did not appeal to the enthusiasm of his audience. Mr. Wells sends us a lengthy outline of his policy, which he intimates "may be slightly enlarged." It is quite big enough to start with. His aims would be to provide (1) that only qualified chemists should be allowed to keep a pharmacy and dispense; (2) that only qualified assistants should dispense prescriptions and sell poisons; and (3) that the schedule of poisons should be greatly increased. He would carry out his views as to the proper names of all pharmacists appearing conspicuously in their shops and on their labels; he would make every chemist pay a licence-fee of 10*s.* 6*d.*, which should make him a member of the Pharmaceutical Society, and which should be revokable by the Society on proof of the commission of certain offences. He would make all proprietors of stamped medicines declare at Somerset House the active or chief ingredients of their compounds, and would not allow anyone but a qualified chemist to sell any such containing a scheduled poison. Wholesale druggists and those in their employ engaged in the manufacture of chemical and pharmaceutical preparations to be qualified chemists. Examinations to be more practical. The *Pharmaceutical Journal* to be reorganised and made to pay. Speeches in Council to be limited to a few minutes each. Two or more chemists to be returned to Parliament, or, failing this, arrangements to be made with two or three influential members of the House of Commons "to represent the interests of the trade, and to be unceasing in their endeavours to secure that justice to chemists which is accorded to other professions." All qualified chemists to be exempt from jury-service.

It will be necessary to get two or three hundred chemists returned to Parliament before Mr Wells's programme will be a practicable one.

MR. STORRAR.

MR. COLEMAN.

MR. BROAD.

Mr. JOHN HINTON LAKE, pharmaceutical chemist, Exeter, is one of the "Seven," but besides adopting the general platform, Mr. Lake writes as follows:—"The chief point I should wish dealt with is that of examination. I do not consider 'dispensing' at present sufficiently practical: it should extend over several hours, and a number of prescriptions, such as are met with in every pharmacy of repute, given the candidate to dispense. The chemistry and botany examinations might be made less severe. Minor men would then be qualified dispensers and could justly claim to be the only fitting persons to dispense medicines in surgeries, public institutions, &c., to the exclusion of unqualified men. The Major examination should include sanitary science, and qualify for the post of public analyst. I also think more might be done in protecting trade interests against the inroads of co-operative societies, &c.; the ways and means would probably be arrived at better by private discussion, at first, rather than by giving too great publicity to the subject." We regret to read the last sentence, as we take it to indicate a tendency towards the "committeeism" which too much characterises the present Council. "Private discussion at first." Yes, if that means the way people's opinions are to be formed; but when the Council come together, its twenty-one members ought to have views ready formed on such a subject as protecting trade interests, and there is no sound reason why honest efforts towards this purpose should not be advocated with all publicity.

Mr. Lewis Buttle Ross is a pharmaceutical chemist at Driffield, 44 years of age, and well known locally as a geologist and naturalist. He wants to get all chemists united in the Pharmaceutical Society, to agitate for exemption from jury-service for all chemists, to get some chemists into Parliament, to get an improved Poisons Bill passed, confining the trade in them, whether sold with a stamp or not, to registered chemists. He thinks the trade have many grievances, and that for some of these a remedy can be found. In the interest of the trade he believes a thorough reformation in the Council is imperative, and, until that takes place, "we [the trade] shall only go from bad to worse till we drift on the rocks and become a total wreck."

Since the foregoing notes were written we have received a letter from Mr. F. A. Cairns, pharmaceutical chemist, Glenelg, Routh Road, Wandsworth Common, enclosing copy of a circular letter sent to the candidates, asking for their views on certain subjects, and the replies thereto. The questions put were the following:—

1. Are you in favour of extending the franchise to "associates not in business"?
2. Are you in favour of making "associates in business" eligible for election to a seat on the Council?
3. Are you in favour of taking more active steps to prevent the carrying-on of business and of dispensing in surgeries, public institutions, &c., by unqualified persons, except under the *direct* superintendence of those who are qualified?
4. Do you think any practicable steps can be taken to prevent "store" dispensing, the sale of drugs by grocers, &c., and to secure a monopoly of the sale of drugs to registered men?
5. Have you any *special* views with regard to the promotion of trade interests in general?

The circular was signed by:—

William H. Sell	Fraser McDiarmid
R. H. Maxwell	George Whitfield
G. T. Cooper	Geo. E Pearson
Geo. R. Fisher	R. G. Hook
Fred. A. Cairns	W. H. Hobbs
J. Macdonald Frew	H. Harris
A. Richard Cross	

Mr. Cairns tells us that Messrs. Carteighe, Schacht, Martin, Richardson, and Maltby have sent acknowledgments or private answers, and sends us the replies received from certain other of the candidates. These we summarise below. All who respond answer questions 1 and 2 affirmatively, except Mr. L. B. Ross, who to No. 1 says, "Not at present."

With regard to the possible limitation of

Dispensing in Surgeries

suggested in question 3, Mr. W. Hills is in favour of taking any "well-considered" steps in that direction, Mr. Hampson is in favour of taking "prudent" steps, and Mr. Atkins would be prepared to support any well-considered scheme. Mr. John Harrison, though "in favour of preventing, as far as the powers at our command will allow, the carrying-on of business by unqualified persons," says, "The dispensing in public institutions is professedly under the superintendence of the medical officer, and is therefore, I imagine, beyond our control." Mr. Grose finds the question difficult, because "in the country the medical men are our best friends. If they will not write prescriptions, do their dispensing for them; if you cannot get that, supply them with drugs. Still, seeing that such evils do exist in the large towns as open surgeries, and if the public safety is the reason why only registered men may dispense prescriptions, or sell scheduled poisons, I would take active steps to prevent these things being done except by qualified men either under the Medical Acts or the Pharmacy Act."

Messrs. Storrar, Broad, Ross, Spink, Leigh, Coleman, and Evans say "Yes" to the question more or less simply.

The question as to the possibility of taking any steps to prevent store dispensing, the sale of drugs by grocers, and to secure

A Monopoly of the Sale of Drugs

to registered men is thus answered:—

Mr. W. Hills fears that in the present state of public opinion no practicable steps can be taken to effect these objects. It is possible, however, that in the near future the sale of the compound preparations of the British Pharmacopœia, together with the dispensing of medical prescriptions, might be secured to registered men, if the members of the trade at large were to support with unanimity the efforts of the Council in this direction.

Mr. Storrar thinks it would be trespassing too much upon the convenience of the public to prohibit the sale of simple, non-poisonous drugs by grocers, &c.; but he thinks that a monopoly of dispensing prescriptions should be claimed by registered men, and that these registered men should be *bonâ fide* proprietors of businesses, and not simply *employés* of limited companies.

Mr. Hampson does not think any practicable steps can be taken at present. Mr. Broad thinks they can. Mr. Ross fears they cannot, but would consider any feasible suggestions, and support them.

Mr. Atkins does not think the Stores can be prevented from dispensing if the dispensing be conducted by qualified persons. He would desire to restrict the sale of drugs to registered persons, but to attempt to enforce such a monopoly he regards as perfectly Utopian.

Mr. Spink thinks the purposes could be accomplished by means of a Poisons Bill with a largely-extended schedule, and the election of one of our number to watch and protect our interests in the House of Commons.

Mr. Leigh says there is no hope that Parliament will restrict the sale of drugs (other than poisons) to registered men. Mr. Coleman replies "Yes, beginning with poisons and medicines containing poisons." Mr. Evans is afraid not, but believes that every qualified chemist should be permitted to put up any preparation of his own, and sell it over his own counter unstamped, leaving advertised proprietary medicines to be stamped as at present.

Mr. J. Harrison is quite certain that no Parliament we are likely to see elected will grant such a monopoly. Mr. Grose says "No."

Trade Interests.

To the invitation for the expression of any special views as to means for promoting trade interests, Mr. Storrar recommends all members of the trade to join the Society, and so influence its policy. Mr. Hampson advocates loyalty to each other, and loyalty to the Pharmaceutical Society. The latter should be made a bulwark of strength and union, comprehending, as far as possible, the entire trade. It will then be a fit instrument to contend with the possibilities of the future.

Mr. Broad proposes "more just regulations as to patent medicines and licences imposed on chemists." Mr. Spink suggests a half-guinea compulsory subscription to the Pharmaceutical Society, which would increase the power and stability of the Society, and enable us to present a united front to our many enemies. Mr. Leigh sees the first essential in the consolidation of the Pharmaceutical Society, after which many things now impracticable might be possible.

Mr. Coleman wants direct representation in the House of Commons; an equitable revision of the Medicine Stamp Acts; to bring into the Society all registered men; and exemption from jury-service for all registered chemists. Mr. Grose urges "education in its broadest sense."

Mr. Walter Hills discourses as follows:—"Trade interests are, in my opinion, best promoted by individual excellence and corporate unity of purpose. The Pharmaceutical Society should have the hearty support of all who are on the register, and who, having elected their Council, should be ready to sink individual crotchets and views, and trust the Council to do its best for the general body. A better preliminary education and training than in many cases exists, and a curriculum, are highly desirable. Also the cultivation of a *professional* spirit, by which I here mean a kindly thought for the interests of the fellow members of our craft and a jealousy for the honour of the corporate body: a spirit utterly opposed to the selfishness (often thoughtless, evinced by one qualified man 'cutting' against another, thus leading the public to undervalue the skill and care which, rightly considered, are a portion of the chemist's stock-in-trade. Little advantage there is in seeking to close the 'Stores,' as long as chemists compete with one another in asking the public to remunerate them on what, if universal, would be a starvation scale.

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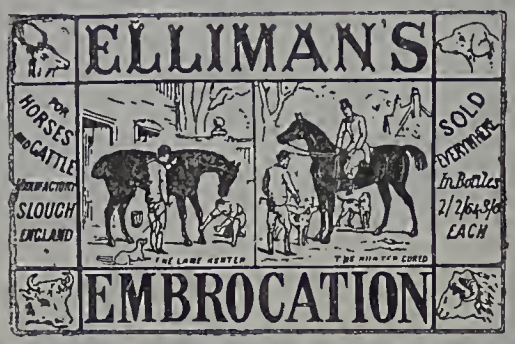

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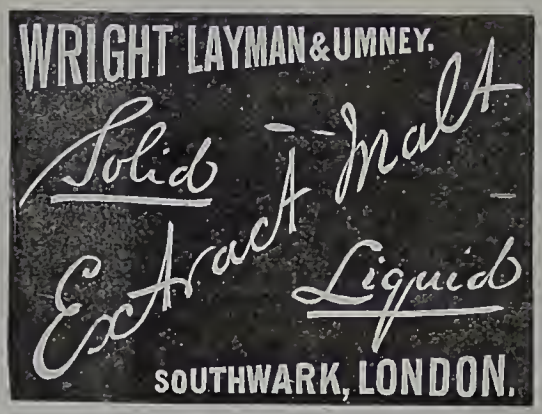

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EDITORIAL NOTES.

COUNCIL CANDIDATES.

ELSEWHERE in this issue we have compiled what we admit to be an imperfect and, to some extent, unsatisfactory conspectus of the programmes offered to members of the Pharmaceutical Society for selection at the forthcoming Council election. The imperfections which we recognise in this compilation are due to the reluctance which some of the candidates manifest to declare their views. It must be admitted, however, that the system of addressing the voters is growing in favour, and it will grow in proportion as the members interest themselves intelligently in the topics with which the Council has to deal. There can hardly be a doubt that this year that interest has considerably developed It was spurred on by what we must call the insulting tone assumed by some lofty critics last year, who could no understand that members should exercise their franchise in a manner contrary to precedent, and in a direction which threatened to be subversive of established authority; and we hope to find it display itself effectively a fortnight hence by a largely-increased poll.

Without entering minutely into the details of the

differences which separate the two parties in the present contest, it is clear that the imaginary line of demarcation runs through the region of what are called trade interests. But it is by no means easy to define exactly the position taken up by one side or the other, though we are disposed to believe that they are divided by a real space. Mr. Carteighe and his supporters say, and say reasonably, that they are ready to do all that it is practicable, all that is fair for a body entrusted with public functions to attempt. We do not doubt that they have in committee discussed schemes and ideas which suggest themselves to outsiders, and we are quite prepared to believe that they quite sincerely adopt the theory that their methods are the only reasonable and sound ones which could be demanded from the community in the form either of the administration of the present law, or of proposals for further legislation. They also claim with perfect justice that their interests are as keen in the maintenance of chemists' rights as are those of their challengers; but they intimate that they are better able to gauge the possibilities of battle than outsiders can be. Their adversaries maintain, on the other hand, that the actual Council is too much enamoured of educational and professional ideas, and too little disposed to risk its respectability on trade interests. They have a general impression that the Pharmacy Act has not been enforced with the vigour which might have been expected, and that there has been an unreasonable delicacy about pressing claims which seem to them reasonable and just.

The party of progress is very heavily weighted, it seems to us, by the crude and extravagant schemes which are put forward by its more advanced members. One notion which seems to have found favour in several quarters is a proposal to get two or three chemists and druggists into the House of Commons, there to advocate the ulterior measures contemplated. We are not informed, however, where the constituencies are to be found willing to sacrifice themselves for the benefit of pharmacy. It is certainly not an impossible idea that some chemists should be able to get themselves elected to the House of Commons, but it is certain that they can only attain this position as politicians, and not as pharmacists. One gentleman proposes to engage a few influential members of Parliament now sitting until more direct representatives can be introduced to the House; but even this more simple method is not without its difficulties. We, at any rate, do not know any influential members who could be easily subsidised. An even more impracticable proposal is offered to secure the much-desired united front which is the dream of all our reformers. It is suggested that every chemist and druggist should be compelled to pay an annual half-guinea to the Pharmaceutical Society as a licence-fee in order to allow him to carry on his business. Fines and imprisonment are to be the consequence of neglect or inability to contribute in this way. This plan only needs to be stated: discussion is superfluous.

Unreasonable and unreasoning suggestions such as these will certainly repel more votes than they will attract. It may surely be assumed that in an intelligent body like the Pharmaceutical Society the majority of the voters are reflective and judicial.

We do not by any means consider that the controlling members of the present Council have done as much as they might for the promotion of trade interests. Ten years since they spent nearly 1,000*l.* to prove the existence of serious flaws in their Pharmacy Act, and they have never since spent a single sovereign in a serious attempt to remedy these. The powers of the Act to protect qualified men have been discovered for them by courts and coroners: they have had to be goaded on to prosecutions; and even when the Legislature has led the way, as in the case of the branch shop clause, they have declined to follow up the opportunity thus presented of strengthening and perfecting their defences. They have the excuse, perhaps, that chemists themselves have never been willing to co-operate heartily in the attempt to make the restriction for the sale of poisons really operative; but they know that this is the reason why the schedule cannot be extended, and they should have promulgated that knowledge, and not have encouraged apathy concerning it as they have done. Whatever be the result of the election in regard to persons, we can only hope that the effect of the present awakening will be to induce a serious consideration of the only means by which the trade can secure more confidence, and consequently greater advantages—that is to say, by the more effective execution of the provisions for the public safety already entrusted to them.

THE FINANCES OF THE PHARMACEUTICAL SOCIETY.

The last act of the Pharmaceutical Council, before the retiring two-thirds of its members submit themselves to the electors, is to render an account of their financial stewardship. The statement for 1889, which we print on another page to-day, is like it predecessors in many respects, and in some it is very unlike. Compared with the statement for 1888, that for 1889 manifests a tendency to save in all departments, and the consequence is that the total expenditure (leaving the Journal out of consideration) is less than in 1888 by 727*l.* 17*s.* 7*d.* The saving is, in fact, 50*l.* more than this, for in that year the examination receipts were higher, yet they cost less in those items which appear in the statement. A few examples of the items of saving will show the direction in which it lies. The conversazione, evening meetings, &c., cost 151*l.* in 1888; but there was no conversazione last year, so there is only 58*l.* under that heading. Annuities and lecturers, with general expenses of the School of Pharmacy, came up to 1,300*l.* in 1888, but to 1,250*l.* in 1889; the library cost 491*l.* in the former year, and 445*l.* in the latter; the museum expenses also decreased from 534*l.* to 448*l.* There was a saving of 50*l.* in postage, and 113*l.* in repairs, as well as an apparent saving in house expenses; but this is not real, as a fresh item appears in the statement, viz., 208*l.* for house servants' wages, which, with other expenses, make a total of 495*l.* as compared with 334*l.* in 1888; while, as a set-off to this, salaries have decreased from 1,358*l.* to 1,215*l.*, on account of "servants" ceasing to be classed with "clerks." Then there was no grant to provincial education in 1889, furniture cost about 5*l.* (176*l.* in 1888), and there was a saving of 96*l.* on law-costs. It may be said, therefore, that there has been a saving all round amounting to nearly 800*l.* Still, however, the accounts show a balance on the wrong side. In 1888 the deficit was 33*l.* 4*s.* 10*d.*; in 1889 it was 46*l.* 4*s.* It will be understood that these figures represent the ordinary expenditure of the Society, and do not include charges on account of the construction of new premises.

Much is being written and spoken at present about the forthcoming election; education, examinations, trade interests, professional prospects, new legislation, and other methods of spending money are propounded; but none of the twenty-three candidates, so far as we know, is advocating economy. A programme on this basis would come with a bad grace, it is true, from the retiring members, while new candidates cannot carry out their schemes without som more dipping into the bag, so that they must needs postpone retrenchment to a more convenient season. But no polic

can be carried out without reckoning with the exchequer, and if the Society is itself going to the bad, it is evident that any assistance which it can render to the trade must make it so much worse. Frequently during the past three years we have warned members of the Pharmaceutical Society that their Council was steering towards financial disaster, and we have had a little spasmodic support within the Council itself, even the treasurer (who is now retiring) having cautioned his fellow members regarding the critical nature of the position; but the majority have smiled in incredulity, and have gone on selling consols and signing cheques. And now the result is retrenchment in all directions, and yet there is a deficit.

Mr. Carteighe with his party must take the credit and the discredit of the lavish expenditure of recent years and its results, and he can hardly complain if the battle centres round himself. If he is again returned to the Council, he has every right to consider that his policy is agreed to by his constituents, and we shall have a continuation of the *régime* which he has directed for the past eight years. These eight years are remarkable in the history of the Society from the financial point of view. At no previous period has the Society's income been so large, and the possibilities for action therefore so great. It would be wearisome to go back to the beginning. A contrast from the last year of Mr. Sandford's presidency will suffice. Mr. Sandford last held office in 1879–80, and in the two succeeding years Mr. Thomas Greenish occupied the chair, Mr. Carteighe succeeding him and beating the record for length of uninterrupted service. We give below a concise statement of the financial position each year, and, as in the accounts of the first two years the income and expenditure of the Journal are not given, we have omitted these items in the rest:—

—	Income	Expenditure	Examination Receipts	Investments
	£	£	£	£
1879	10,799	8,905	5,174	23,500
1880	10,322	10,687	4,687	"
1881	10,356	9,317	4,662	"
1882	10,531	9,652	4,760	"
1883	11,528	10,006	5,497	25,476
1884	11,206	9,744	5,247	27,407
1885	11,527	10,303	5,559	29,407
1886	11,582	10,687	5,832	30,907
1887	12,132	11,376	6,157	31,500
1888	12,011	12,044	6,345	30,514
1889	11,270	11,316	5,841	30,954

It will be seen that the receipts from examination fees are the principal cause of the greatly increased income during the past seven years; and, naturally, with more work to do in in that department there has been greater expense. For instance, in 1879 the examinations are put down at 2,251*l.* for direct payments; in 1882, 2,267*l.*; in 1885, 2,734*l.*; and in 1889, 3,039*l.* But independent of this the expenditure appears to have increased all round. It is fair to state that in 1880 the great lawsuit against the London and Provincial Supply Association cost the Society 819*l.*, and in the following year the International Congress cost 412*l.*, so that before Mr. Carteighe's presidency the normal expenditure was under 9,000*l.* Since 1882 it has only once come down to four figures; and if we were to add to the expenditure of 1884 the cost of the alterations on the Edinburgh house (the sum not having been capitalised), the sums spent reached 10,836*l.* We prefer, however, to keep out of these criticisms all figures relating to "new premises." That is a bird which will come home to roost soon enough. The practical effect, then, of Mr. Carteighe's *régime* is that instead of conducting the Society's affairs at a profit of something like 2,000*l.* a year he has energetically spent more and more every year until the year's income does not suffice for its needs. To that it may be replied that he came into a legacy of 23,500*l.* invested funds and leaves it at 30,954*l.* This appears from the accounts, but it will be found on investigation that he also came into a cash balance of 4,023*l.*, and leaves only 1,625*l.*; and that the 30,954*l.* of realised property is divided into: 5,551*l.* in ground-rents, 10,000*l.* in consols, and the rest (15,403*l*) in premises which are not freehold, and are something worse than unremunerative. Had the Society been conducted during the past eight years on the economical principles which obtained previously, it would be worth 40,000*l.* to-day. And the Society is no richer in influence; it is poorer in support; is not more popular with the trade, and is face to face with the difficulty of making both ends meet. The burden of enlarged premises and diminished interest from investments accentuates that difficulty. This is Mr. Carteighe's nemesis, and the question which the voters have to consider is, can he take them out of the wood? His own record hardly encourages the hope.

THE EXPLOSIVES REPORT.

THE Home Office department for the inspection of explosives has a moderately wide-reaching influence. Primarily intended for the protection of the lives of those engaged in the manufacture and handling of explosive substances, the Act yet permits inquiry into all incidents or accidents which are in any way of an explosive character. The consequence is that the inspectors under the Act are enabled to advise their department of the regulations which are required for the public benefit, and incidentally they give in their reports information which is of interest to chemists. We briefly referred last week to the recently-issued annual report, and shall now particularise other matters in the report of interest to the drug trade.

In regard to the working of the Explosives Act it should be explained that local authorities are vested with a large share of the powers. There are local inspectors, to whom falls much of the detail work, who are advised and assisted by the Home Office specialists. But it would appear that there is room for improvement in the relations between the central and local authorities. We notice, for example, that the Home Office has had no return since 1885 of the number of licensed premises and stores. In that year there were 22,262 premises, and 1,972 stores in the three countries. Surely an annual return could be made at comparatively little expense. Local inspection was somewhat altered in England and Wales, by the Local Government Act of 1888. Broadly speaking, that Act had the effect of placing counties and boroughs under 10,000 population under the County Councils, but a section of the Act allowed the County Councils to delegate their authority to, amongst others, the justices of the county and the sanitary authorities. This, in very many cases, the Councils did very promptly, and matters remain as they were, while we have a decidedly serious new departure in sanitary authorities getting power under the Explosives Act. What qualifications other than an experience of what is popularly known as "smells" these individuals have, it would be difficult to judge. We are pleased to find, therefore, that the report before us submits suggestions for the better administration of the Act by the local authorities, and it is to be hoped that the result will be greater centralisation in the counties.

We mentioned last week that certain new explosives have been reported on by the department. Eleven were reported on favourably, and seven unfavourably. These we should pass by if it were not for the fact that many substances

which we were wont to regard as peculiarly the druggist's property are now largely employed by the explosive-manufacturers. We had a good instance of that in the recent rise in the price of camphor, which was partly due to the use of the drug in smokeless gunpowder; and though it is now abandoned for that purpose it is still used in making camphorated blasting gelatine. For some time past the price of turmeric has been high, and this in drug circles has been attributed to speculation; but meanwhile the use of that colouring matter in the preparation of "smokeless powder" has been authorised. It is not unreasonable to suppose that this fact is known to turmeric-speculators, but that a comparatively small quantity of it is used is evident from the stocks in London, which have not seriously diminished. Amongst other articles which come through Mincing Lane, which are employed in the manufacture of explosives, we note "pure beeswax," shellac, and "gums and resins," which enter into the composition of rifle guncotton, E.C. sporting powder, and similar compounds. Pure solid paraffin is also used; carbonate of magnesia in some cases, and bicarbonate of soda in others; while alcohol, ethers, and benzoline are stock articles with the explosive-manufacturers.

There is little in the report by Dr. Dupré to which we need call attention. He again speaks of the danger of using any substances contaminated with acid in chlorate mixtures, as, for example, improperly-washed copper sulphide in Bengal fires; but it is satisfactory to note that "firework-makers are now fully alive to" the dangers resulting from the use of acid compounds. The reports on explosions are full of interest. One of them illustrates the value of the restriction on the manufacture of coloured fires. It happened in Melbourne, and resulted in a slight injury to one person, but the explosion resulted from the simple sifting of a green fire composed of barium nitrate, potassium chlorate, sulphur and vegetable black. At one time such operations were considered harmless, and were carried on in many a chemist's shop, but the authorities have wisely prohibited this. Another accident warns those who make a solution of gutta-percha in carbon bisulphide not to use heat in the process, especially with a closed vessel. That was done in a factory in Bermondsey, and the vapour exploded, killing one man and injuring two others. An explosion which occurred at Price's candle-works, Battersea, illustrates the old danger of mixtures of hydrocarbons with air. A man went into a disused fatty acid still to clean it out. He struck a match to light a candle; immediately an explosion resulted, and he was fatally injured. Mr. Boverton Redwood is not aware of any accident analagous to this; indeed, the vapour of fixed oils is not generally considered to be explosive, the flashing point being about 700° F.: but many years ago inflammable gas was made from refuse fatty matter, so that it is easy to account for the production of an explosive atmosphere; and the fact that the still was open at the top accounts for the admixture of air, while an escape of vapour into it from other vessels, gave it the modicum of hydrocarbons to constitute an explosive mixture. In referring to a trifling explosion which occurred at Bankside, owing to a boy throwing some metallic sodium into water, the inspectors state that "a moderately large-sized piece of sodium, say the size of a bean or even less, often explodes when thrown on water." This is true, but it would have been worth while to call attention to the fact that sodium which has been freed from the oxidised outside portion, and all trace of paraffin, does not explode. The explosive substance is a loose compound of the metal and paraffin. In addition to the matters of a purely explosive character, the report also deals with accidents in petroleum-laden vessels, and a graphic account is given of the great fire at Antwerp, which resulted in the destruction of over 55,000 barrels of petroleum. Another accident which occurred in London was the subject of an investigation by Dr. Dupré. A van, containing amongst other things methylated spirit and chloride of lime, was upset, and took fire, owing, as Dr. Dupré proved, to the chloride of lime reacting with the methylated spirit, akin to the chloroform reaction, and the temperature becoming so elevated as to ignite the spirit.

COMMENTARY.

The Irish Pharmacy Bill.—This Bill has not yet been circulated, though it is down for second reading on Friday of this week. Meanwhile, a carelessly printed circular has been issued to members of the House of Commons, signed by Sir J. H. Haslett, as President of the North Branch of the Chemists and Druggists' Association of Ireland, narrating concisely the circumstances which have led to the introduction of the Bill, and asking for support on the ground that pharmaceutical chemists, numbering only about 150 in business on their own account, are utterly inadequate to meet the requirements of the country or cope with a trade in which more than 2,000 chemists and druggists are at present engaged, and that it would be unreasonable that Parliament should be expected to stamp out a healthy competition which has supplied the country well and on favourable terms. From this it appears that the Bill is to be that of 1888, as amended after negociations between the representatives of the druggists and of the Pharmaceutical Society. With this circular a reprint of Mr. Brunker's letter from the last number of The Chemist and Druggist is enclosed.

The Sale of Methylated Spirit.—The Customs and Inland Revenue Bill, which was read a second time in the House of Commons on Monday last, contains some provisions in respect to methylated spirit which are of importance to chemists and druggists. The Commissioners take power to allow not only "any substance," but "any combination of substances" to be used for the purpose of methylation. After June 30, 1889, methylators will not be able to get drawback if they use duty-paid spirits for methylation. It is also provided that retailers of methylated spirit shall not sell the article in a less quantity than a reputed quart, and authorised methylators are to be permitted to supply it in reputed quart bottles, but (as now) in not less quantity than five gallons at a time. Retailers holding any spirit licence are not to receive, or have in their possession, or sell any methylated spirits, except in vessels containing not less than a reputed quart (unless they have been authorised by the Commissioners to use it in any art or manufacture). No mixture of methylated spirit with gum resin containing less than three ounces of the latter to the gallon is to be allowed. An extra penalty of 50*l.* is imposed for any disregard of the prescribed regulations in respect to methylated spirit, and the Commissioners are to have power to suspend or revoke the still licence granted to anyone who may be convicted of any offence in this respect. The object of the Commissioners seems to be to suppress altogether the sales of odd lots of methylated spirit, and they may follow up this measure with a provision for the registration of all sales. It is obvious that if the spirits were sold only in quart bottles, sealed, it would become a much simpler matter to trace it, and to discover misuses of

it. The Pharmaceutical Council are opposing the proposal.

As we go to press, we learn that, in consequence of urgent representations which have been made on the subject from all parts of the kingdom, the Government have decided to withdraw from the Budget Bill the provision which prohibits the sale by chemists and druggists of less than a quart of methylated spirits of wine.

Excise Licenses.—There is another clause in the Customs and Inland Revenue Bill which the Pharmaceutical Council seem to have overlooked, but which is likely to affect many chemists more than the methylated spirit provision. Clause 9 declares that "every excise licence to carry on any trade or business (except the trade or business of an appraiser, auctioneer, or hawker) which shall hereafter be granted, shall only authorise the person to whom the licence is granted to carry on the trade or business mentioned therein in one set of premises, to be specified in the licence." This will apply to medicine stamp licences. At present one person licensed is allowed to carry on business in any number of shops, if they are mentioned at the time application is made. The clause has, probably, been introduced in consequence of the doubt, which was raised in this Journal a few months back, in reference to the application of the methylated spirit licence to several establishments.

A Chemical Corpse.—A murdered clerk, of Copenhagen, was shipped to New York by the *Thingvalla*, which arrived on February 4. The appraiser, in whose division it fell, made the slightest examination of the cask, and then officially reported it as "one cask, chemical compound; value, 10$; duty, 25 per cent." The cask was marked for Beresford Bros., Racine, Wis., but they could not be found, and the cask was never claimed. About the middle of April, a telegram was received from the Copenhagen police, stating that a soap manufacturer, named Phillipsen, having been arrested for insurance frauds, had confessed to the murder and the shipment. Then, after a good deal of trouble, the ten dollars' worth of chemical compound was discovered.

Hong-Kong Pharmacy Prospering.—The drug business appears to be booming in Hong-Kong, if we may judge its prosperity by the description of the new premises about to be opened in the Queen's Road by Messrs. A. S. Watson & Co. (Limited). The buildings are of six floors, and divided into two blocks by a broad area. One block is built thoroughout with fireproof floors, and is intended to serve as a soda-water manufactory. The other building is provided with a hydraulic elevator for passengers, and also with two other powerful goods hoists. Land in Hong-Kong is rising rapidly in value, and it has therefore become necessary to build houses such as Messrs. Watson's on several floors. The available floor-space of the new buildings is nearly half an acre. The whole of the floors are carried up, quite independently of the walls, upon iron girders and columns, according to the system advocated by the chief of the London Fire Brigade. The ground floor of the one block serves as a pharmacy. It is handsomely decorated with wood-panelled ceilings and wainscoted walls; and in the panels are introduced a series of very valuable gold-painted tablets, presented to the firm by the Viceroys of the Kwangtung and other provinces, extolling the virtues of Western medicines. Gilt tablets appear to be a favourite testimonial of Chinese viceroys to British pharmacists, for only two weeks ago we announced the presentation of two similar signs to another British drug-house in Hong-Kong by a body of Chinese marines. It would be interesting to hear from some of our readers in China what special connection, if any, exists between pharmacy and this form of testimonial.

CAFFEINE TRI-IODIDE.

By P. W. Squire.

As paragraphs relating to this compound have appeared in the "Commentary" of The Chemist and Druggist, February 15 and May 3, and as some uncertainty seems to exist regarding the constitution of the body prescribed under this name, the following notes may be of interest.

For the confusion of formulæ which has arisen in connection with the subject, the original paper by Professor Tilden (Jour. Chem. Soc. 1865, page 99) is primarily responsible. After reading that "the results of experiments undoubtedly point to the formula $2(C_8H_{10}N_4O_2I_3)3H_2O$," one does not naturally expect to find the author, after further experiment, altering the formula on the succeeding page to $2(C_8H_{10}N_4O_2.HI.I_2)3H_2O$, a change which gives a totally different idea of its constitution and method of preparation. Misled by the want of visible connection between the two statements, The Chemist and Druggist commentator of May 3 gave Tilden's corrected formula as belonging to a closely-related but different compound to that denoted by the provisional and incorrect formula given on the previous page; and the printing of the latter in the paragraph of February 15 (copied into the *Pharmaceutische Zeitung*) has given an opportunity to Dr. Scholvien to add to the confusion by proving at considerable length that no body with such a formula could possibly exist.

When I was first asked by Dr. Mortimer Granville to prepare a quantity of this salt, Tilden's second formula was overlooked altogether, and his original directions were implicitly followed; but it soon became evident that the rapidity with which the crystals formed was directly proportional to the liberation of iodine from the excess of hydriodic acid present, an old and decomposed acid being far better for the purpose than a freshly-prepared and colourless acid.

The next experiment was to use an acid containing a quantity of added iodine, when a crop of crystals was quickly obtained, more than double the weight of the added iodine, the resulting inference being that two-thirds of the total iodine was practically in the "free" state, and the compound, instead of being a tri-iodide, was really (as indicated by Tilden) the normal hydriodide (hydriodate) of caffeine, with two loosely-combined atoms of iodine, whence its usefulness in therapeutics. Analytical results obtained by my assistant, Mr. Robert Thomson, completely confirm this view, and corroborate those obtained by Professor Tilden, except in regard to the water of crystallisation, which we think in no case exceeds $1H_2O$ in the molecular compound.

The following are the percentage results obtained from some well-formed crystals:—

	Experiment	$C_8H_{10}N_4O_2.HI.I_2.H_2O$
Caffeine (anhydrous)	32·4	32·66
Hydriodic acid	21·59	21·55
Iodine	42·67	42·76
Water	3·1	3·03
	99·76	100·00
Total iodine	64·09	64·14

The constitution of the body may be shown by either of the three following methods:—(1) By treatment with cold water iodine is liberated to the extent of 42 per cent. (two-thirds of the whole), and may be titrated by hyposulphite. (2) By treatment with caustic soda, five-sixths of the "free" iodine is converted into iodide, and one-sixth into iodate of sodium; so that of the total iodine, eight-ninths (57·28 per cent.) is precipitated by silver nitrate from a solution containing excess of ammonia (in which silver iodate is soluble), and the remaining ninth (7·13 per cent.) on the addition of sulphurous acid, the theoretical percentages being 57·02 and 7·12 respectively. (3) By treatment with water and carbon bisulphide, or by boiling with water alone, the loosely combined iodine may be removed, and on evaporation the colourless liquid yields crystals of the ordinary hydriodide.

A complete synthesis of the salt has been effected by dissolving the theoretical quantities of caffeine and free iodine in hot hydriodic acid, previously saturated in the cold with the "tri-iodide," when the theoretical quantity of this di-iodo-hydriodide crystallised out on cooling.

As the still more highly iodized compounds of caffeine present many features of interest, both chemically and therapeutically, experiments on their preparation and properties are still proceeding.

FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

UNHEALTHY EMPLOYMENT.—In accordance with the wish and advice of the Seine Council of Public Hygiene, the Minister of Commerce proposes to introduce a Bill forbidding the employment of girls aged less than sixteen years, in working sewing-machines operated by foot-power.

LEPROSY IN NEW CALEDONIA.—From a communication sent by Dr. F. Forné, of the Colonial Health Service, to the Paris Academy of Medicine, it appears that the contagion has now spread from natives to white men. One of the cases mentioned is that of a liberated convict, named Louis, a native of Belgium, aged 42, who at Moindou, near Noumea, has contracted leprosy from too close an association with Kanakas affected with the disease. This instance, at the same time, is presented as a proof of the malady's contagiousness which is still denied by some physicians.

CONCLUSION OF THE OTTO GAS ENGINE LITIGATION.—For a long time the Otto Gas Engine Company have had suits pending against Mignon and Rouart, constructors, and Powell and Chauvin, for counterfeiting their motor. On April 22 the case came up for final decision before the Cour de Cassation, which, confirming the Court of Appeal's judgment, has held that Powell's electric spark process is essentially different from Otto's principle; that defendants' receiver from the gaseous mixture is an important improvement, and so is his air-regulator; and, lastly, that none of the essential features of his engine infringe Otto's patent. Hence judgment has been given for defendants.

A QUININE RIOT.—M. Mongin, a pharmacist at No. 23 Boulevard Beaumarchais, recently distributed handbills in which he said, "Sulphate of quinine is sold at 2f. a gramme by pharmacists who greatly respect themselves; from 1.50f. to 75 centimes by those who respect themselves proportionally less, and 30 centimes (3*d.*) by me, who, my brethren say, do not respect myself at all. And yet, I have the courage to say the chemical barely costs us a penny a gramme." Last Wednesday a crowd of young men, said to have been chiefly composed of pharmacists' assistants, made a demonstration before the establishment of the obnoxious cutter. For about an hour there was much singing and shouting, also some ink-throwing against the shop-windows, when the police made a tardy appearance, and all decamped. No arrests were made.

THE TRADE MARK LAW AMENDED.—The Bill recently alluded to in THE CHEMIST AND DRUGGIST has become a law in substantially the same shape as it was noticed. It is as follows: "Article 2 of the law of June 23, 1857, on trade-marks (marques de fabrique et de commerce) has been modified as follows: No one can claim the exclusive property of a trade-mark unless he shall have registered in the registrar's office at the Tribunal of Commerce of his domicile (1) three copies of the trade-mark; (2) a typographic cut of the same. When the same person shall register several marks, one certificate only may be issued, but there must be for each mark the three copies and typographic cut. One of said copies shall be returned to the owner, endorsed with the registrar's visa, and the date and hour of registration. The cuts shall not exceed 12 centimetres in either dimension, and shall be returned to the owner after the legal insertions in official papers."

ANTIPYRIN IN THE PARIS HOSPITALS.—From the last report of the Assistance Publique it appears that the hospitals' estimated expenditures will be 37,192,085f. in 1890, against about 27,300,000f. in 1879, an increase attributed chiefly to a greater number of patients. The expenses for drugs will be considerably higher. There will be, however, one notable exception in the case of antipyrin, whose history is peculiar. Before 1884 the annual consumption was only 725 grammes, at 160f. a kilo., but in that year it suddenly rose to 357 kilos. at 130f., thus costing over forty-six thousand francs. Then the hospitals had to pay the syndicate's prices, the name "antipyrin" being copyrighted in France. But of late some chemists got around the monopoly by calling the article "analgesin," and have been manufacturing and selling it freely under the statutes which forbid the patenting of any medicine. In consequence the price fell to 89.50f., and finally to 79f. a kilo., so that in 1889 the expenditures for antipyrin were 25,000f., against 40,000f. in the year preceding.

A FRENCH OPINION ON THE WHEELDON CASE.—A pharmacist here, reasonably well-informed on English pharmaceutical affairs, was the other day commenting upon the Wheeldon case and the impression it has made in England. He thought the decision, coupled with a previous one, which held all patent medicines containing a scheduled poison should be labelled accordingly, is of considerably higher importance to qualified dispensers than they appear to realise. Some, he said, only see that the poison trade brings in, on an average, so much a year, and hence conclude it is of secondary consequence. But the new decisions reach much farther. They mean nothing less than the absorption of the dispensing business by the qualified pharmacist, and the exclusion of the outsider. What sort of a pharmacy will that be in which they may dispense no opium preparations, no alkaloids, no arsenicals, and no tartar emetic? Open your prescription-book and tell me. Such restrictions are enough to cripple any dispensing business and impair the standing of any dealer. Here, for instance, comes a patient with a set of prescriptions, two for internal use and one for external. One of them is a mixture with Easton's syrup containing strychnine, which the dealer dares not deliver. Do you suppose many customers will be willing to have one of the medicines prepared at one place and two at another? And under such conditions is it possible for the unqualified dealer to compete with the regular dispenser? The question answers itself. Poisoning accidents will, of course, happen with a careful and educated body of pharmacists; but they will occur much oftener with uneducated dealers. Pharmacy laws are not for the protection of the pharmacist, but for the protection of the public.

PARIS SOCIETY OF PHARMACY.

AT the regular monthly meeting, held on May 7, M. Marty presented a

NEW DROPPING PHIAL

made by J. Fournier, convenient for carrying in one's pocket. The little appliance is an ingenious adaptation of Lebaigne's discovery that the size of drops depends almost altogether on the nature of the vessel, and that a tube three millimetres in diameter will afford twenty drops to the gramme of nearly any sort of liquid flowing through it. In French pharmacy such drops are generally designated under the name of normal drops. An advantage of the dropping-phial is that a vent-hole in the neck will allow the liquid to run when the notched stopper is brought against it, and prevent all overflow or leak when the stopper is turned the other way.

THE BARCELONA SOCIETY OF PHARMACY

addressed a letter to its Paris namesake, asking that henceforth all the members of either Society's Board be *ex-officio* considered corresponding members of the other. The request was referred to the Committee on Candidates.

THE DIGITALIN IMBROGLIO.

It will probably be remembered that, some time since, a committee was appointed to find a way out of the difficulty which confronts a pharmacist when he receives some prescriptions ordering digitalin. Yet the question came up again before this meeting. P. Vigier said it was he who wrote the article on digitalin for the present Codex. He had written previously to Merck, of Darmstadt, for some of his pure digitalin. On testing the specimen with various solvents, and observing its solubility in water and complete insolubility in chloroform, it was evident the chemical was what is known here as digitalein, a product much weaker than ours. "Consequently," he went on, "I decided for Nativelle's crystallised digitalin, as a product of clear and definite composition. M. Homolle, who makes the Homolle

and Quevenne's digitalin granules, said that his product also was soluble in chloroform. I was rather astonished to hear that a chloroform-soluble digitalin could be administered like his in one-milligramme doses. But, even admitting his statement, I thought then it would be only a duplicate of Nativelle's, and decided for that alone. And I was somewhat astonished, having missed some Codex revision meetings, to see, when the edition appeared, that the French Pharmacopœia recognised as official an amorphous digitalin under the condition that it be entirely soluble in chloroform. So now in business we have before us several sorts of digitalin, and had to name a committee to decide the question as to which should be used."

M. Wurtz, having explained that the confusion was due to the fact that the Germans call "digitoxin" what we call "digitalin," and "digitalin" what we know as "digitalein,"

M. Vigier replied that the difficulty remains all the same. Pharmacists will order digitalin of their wholesaler, and receive different substances of very different toxic properties, which they are apt to use for filling prescriptions.

M. Marty: It was I who caused amorphous digitalin to be made officinal in the Codex, because some objected to the difficulty in obtaining the crystallised, and we were satisfied that the condition that it be completely soluble in chloroform was sufficient to insure a product of equal potency. The fact, by the way, has been confirmed by the recent experiments made by Dr. Bardet.

M. Ferrand was of opinion that the chloroform solubility test was sufficient. But M. Petit thought it was more prudent not to be in too great haste to accept such conclusions. For his part, he was in favour of crystallised digitalin alone.

M. Planchon: But it seems to me, gentlemen, we are here doing the commission's work. One has been named to decide this very question.

"Well," replied a member of the commission, "the committee has been appointed for over a month, and we have not yet been convened to any meeting. It is time some action was taken." Upon this wise remark the discussion ended, with the promise that a meeting should be called without loss of time.

Potash Permanganate Pills.

M. Léger, alluding to a recent article in the French periodicals, which recommended gelatinous silica or ferric oxide as an excipient, said he preferred pure kaolin, which gave easily-rolled pills, readily soluble in cold water, as shown by a specimen which he presented.

M. Ferrand remarked he had called attention for the purpose to Mr. Martindale's excipient, composed of kaolin and vaseline, which has long been known in England. But M. Léger persisted in his preference for kaolin alone, which can be used also for pills containing potash bichromate or chloride of lime. True, the latter are seldom prescribed, but they are occasionally.

Formulary for New Remedies.

Finally an election was held to designate the members of the committee which will have charge of the preparation under the society's authority, of the proposed formulary for the new preparations not mentioned in the Codex. Besides the officers of the society, who are *ex-officio* on the commission, the nine following members were selected: MM. Bourquelot, Ferrand, Portes, Marty, Boymond, Professor Prunier, Crinon, Professor Bourgoin, and Patein.

MARRIAGE.

Butler—Hutchins.—On April 24, at the parish church of St. Thomas, Neath, Miss Priscilla Sarah, eldest daughter of Mr. Chas. Hutchins, chemist, Neath, to Mr. Wm. Butler, of New York.

DEATHS.

Atherton.—On April 29, at 45 Sedley Street, Everton, Liverpool, Mr. William Atherton, aged 74 years. The deceased had been an annuitant on the Benevolent Fund of the Pharmaceutical Society since 1876.

Genevoix.—On Friday, April 18, François-Emile Genevoix, late director of the Pharmacie Centrale de France, died at his residence at Sens, a small city of Roman origin in the Department of the Yonne, in the sixty-third year of his age. M. Genevoix was a native of La Celle-Dunoise, in the Department of the Creuse, and received his education at the Roman Catholic colleges of Ajain and Felletin. He reflected considerable credit upon his tutors, and left college with the highest honours in philosophy. In 1847, the year preceding that when the throne of Louis Philippe was shattered by the revolution which ended in the rise of Louis Napoleon, first as Prince-President of the Republic, and then as Emperor of the French, young Emile entered into the Pharmacie Duhrouillet, in the Chaussée du Maine, as an apprentice, and subsequently served for a time in the establishment of Miquelard-Dehrcuil, 14 Rue des Beaux-Arts. On May 5, 1855, Genevoix graduated in the Paris College of Pharmacy as a pharmacist of the first class, and in the same year he became proprietor of Miquelard's business, a function which he continued until 1879. In the

revolutionary days of 1848, while still a chemist's apprentice, Genevoix espoused the popular cause, and was shot in the arm while taking part in a barricade fight. The enforced leisure caused by his wound brought out the literary gifts that lay dormant in the youth, and from that time until a few years before his death his effusions, in prose and verse, on pharmaceutical and general topics have been numerous, and often, taking into account the fact that he never laid claim to higher honours than those of an amateur, exceedingly meritorious. But M. Genevoix's energies were not absorbed by the daily cares of business and the translation of poetic inspirations of his spare hours. He threw himself with ardour into the arena of pharmaceutical politics, and lent a strong hand in hastening several important changes which had long been overhanging the sky of French pharmacy. In 1857 Genevoix was elected a member of the council of the Pharmaceutical Society of the Seine, then the leading pharmaceutical organisation in France. That body, according to all accounts, was the reverse of a progressive organisation, but it contained a strong contingent of ardent pharmaceutical reformers, among them the elder Fournier and others, whose names have since been become household words in French manufacturing pharmacy. These were constantly urging upon the society the adoption of more enlightened views with regard to the exercise of the pharmaceutical profession and the position of manufacturers of pharmaceutical preparations, and their party was very greatly strengthened by the election of Genevoix. In 1863 M. Genevoix, who in the meantime had become honorary secretary of the society, took a prominent part in a discussion on the respective merits of the systems of limitation or freedom of pharmacies, which ended in the carrying by 104 against 57 votes of a resolution in favour of the free exercise of pharmacy by unqualified persons.

In the meantime Genevoix had struck out on a new path by advertising a *Huile de Marrons de l'Inde*, which enjoyed a certain popularity as a pharmaceutical preparation of old Miquelard, his predecessor in business. But the public

advertising of this article caused an action at law to be brought against him, at the instigation of his enemies, for selling a "secret remedy." Notwithstanding that M. Genevoix offered to show his adversaries the process by which his medicament was made in his small works at Romainville, he was convicted, and sentenced to pay a fine, the French law being imperative on the point that any preparation not mentioned in the Codex is a secret remedy. M. Genevoix revenged himself by lampooning the French codex and the "gros bonnets" of pharmacy generally in sundry verses, the sarcastic tone of which was not calculated to improve his relations with the official pharmaceutical big-wigs aforesaid. Meanwhile M. Genevoix prospered exceedingly in his business, and in 1867 he was elected mayor of the commune of Romainville, where his factory was situated. After the Franco-German war, it was M. Genevoix who, with the aid of Dr. Norcott, obtained from the Lord Mayor's fund two donations of 100*l.* each, which, together with about 60*l.* subscribed by the Pharmaceutical Society of Great Britain, served to relieve to some extent the first necessities of French pharmacists ruined by the war. In 1876 the "Association Générale des Pharmaciens de France" was formed at Clermont-Ferrand, and in two years afterwards, Genevoix, who had taken a considerable part in its formation, was elected President by 101 of 123 votes. He retained this office until 1883. In the summer of 1879 an important event in the career of Genevoix took place—viz., his election as managing director of the Pharmacie Centrale de France. That gigantic business establishment in the Rue de Jouy is a kind of French Pharmaceutical Co-operative Society. It deals with none but chemists, and its shares are owned exclusively by pharmaciens. The undertaking had attained great importance under the management of M. Dorvault; but that gentleman's rule became excessively autocratic, and shortly after the absorption by the Pharmacie Centrale of the great chocolate business of Menier's, several shareholders, M. Genevoix prominent among them, commenced to press for an investigation in the affairs of the society, the turnover of which had then reached 7,500,000f. per year. M. Dorvault's death occurred just at that period, and the appointment of a committee of inquiry led to the discovery of gross irregularities in the factories and warehouses of the company, not only in Paris, but also in Marseilles, Lyons, and other branch houses. Bad and doubtful debts to the extent of over 850,000f. were revealed, and the end of the inquiry was that the nominal capital of the company had to be reduced from 5,000,000f. to 3,750,000f., and rigid economies effected in all departments. The Dorvault family, who owned a large number of shares in the concern, consented to bear 400,000f. of the total loss; and, after the presentation of the report of the committee of investigation, M. Genevoix was elected managing director of the company, with a salary of 30,000f., a free residence, and certain other advantages. A gold medal was also unanimously voted to him in recognition of his services on the committee. From 1879 to 1888 M. Genevoix remained at the head of the Pharmacie Centrale, which under his guidance entered upon a new era of prosperity. During the last few years his health commenced to break down, and he was compelled gradually to resign all his public offices, and finally to withdraw to his country residence at Sens, where he expired on April 18. His principal literary work is a volume of verses bearing the singular title "Rimes de l'Officine," which he published in 1875, and which contain references in poetic garb to various points of interest in his career as a pharmacist and a public man. One of the best pieces is an elegy on the death of Dr. Quevenne, pharmacien of the Hôpital de la Charité, who died in 1855. M. Genevoix was undoubtedly a man of great capacity for work, with unusual powers of organisation. By those who knew him well he was universally liked for his manly and straightforward character. He also possessed, when he cared to exercise it, the power of making himself agreeable in a degree rare even among Frenchmen. But his absorption in his business duties during the latter part of his career, and the ingrained habit of his former days to poke fun at the constituted authorities of pharmacy, and at that Koran of the profession the French Codex, made him many enemies in influential circles. The Pharmacie Miquelard, of which Genevoix was the proprietor at one time, was relinquished by him to his son, Dr. F. Genevoix, in 1879.

GERMAN PHARMACEUTICAL NEWS.

(From our Berlin Correspondent.)

National Pharmacopœias is to be one of the subjects to be raised for consideration at the International Congress in the section of Pharmacology. It is questionable whether the New Edition of the German Pharmacopœia will be issued by that time; it was expected to have been published before this, but it will not be a matter for surprise if the end of the year is reached before it has come into practical use.

The Number of Students in the Universities of this country has enormously increased of late years. During the last twenty years it has about doubled. In 1869 one out of every 2,297 persons was a student while in 1888 the proportion has increased to one in 1409. It must not be inferred from this that the education costs nothing; on the contrary, it is expensive both to the student and to the Government, which supports the Universities. In the year 1888-89 the cost of each student to the Government averaged per "semester" (half-year) 32*l.* 10*s.* The average length of time during which the student studies at the University is 9½ semesters and the public expense occasioned by each may therefore be said to be about 155*l.*

The Denaturalising of Spirit was the subject of a paper read at a recent meeting of the Chemists' Association here by Dr. Herzfeld. The author considers that denaturalised spirit should be more or less poisonous so as to absolutely exclude its use as a beverage. At the same time, it should not be too expensive, and should have the further property of resisting simple methods of purification. He regards it as essential that the presence of the denaturalising agent should be easily detected, so as to facilitate its discovery if the denaturalised spirit should be used unlawfully. As a test for pyridin he recommends a concentrated alcoholic solution of cadmium chloride; wood spirit is most readily and accurately detected by transforming the acetone it contains, to the extent of about 30 per cent., into iodoform by Kraemer's method, which does not give iodoform with ethyl alcohol.

Novelties in Antiseptics are still coming forward. No less than four new ones have appeared in the course of about a week. All of them, of course, are non-poisonous, effective and cheap. These are disinfectol, sulphaminol, and two pyoctanins. The first-named is a coal-tar product; sulphaminol, a patented article, is a compound of oxydiphenylamin and sulphur, and said to be an admirable substitute for iodoform; and the two pyoctanins are aniline colours, blue and yellow, the former being intended for use in surgery, and the latter for ophthalmic purposes. Of course there are already a number of medical preparations, such as 1 and 2 per mille dusting-powders, ointments, bougies, tablets, and 1 per mille gauze. The drawback that the patient undergoes a partial dyeing operation is, we learn, readily overcome by washing with Eau de Javelle or a spirituous solution of soft soap—rather a severe treatment for some sufferers!

NEW COMPANIES.

Dry Soap Company.—To purchase and carry on the business of a dry soap manufacturer, at the Spring Mill, Boardman Street, Bolton, Lancashire. Capital 2,000*l.* in 5*l.* shares.

Banner, Son & Co.—Formed with a capital of 1,000*l.*, in 1*l.* shares. To commence, acquire by purchase, and carry on, in Liverpool or elsewhere, the business and trade of chemists, druggists, and dealers in patent or other medicines. Registered, May 2. Thomas Banner, managing director. Registered office, 179 London Road, Liverpool.

A Remarkable Invention is offered for sale by the patentee. It is "a new form of tea and coffee pot which *does not spoil the tea with nicotine*, but gives off a fresh brewing with each cup." We have italicised seven words, so as to emphasise the remarkable nature of the invention.

Legal Reports.

Steedman's Soothing Powders.

On April 30, Mr. Marten, Q.C., (with whom was Mr. Tristram) applied to Mr. Justice Kekewich, sitting in the Chancery Division of the High Court of Justice, on behalf of John Steedman & Co., the proprietors of Steedman's Soothing Powders, for an injunction to restrain Mr. John Steedman from selling packets of soothing powders in colourable imitation of the packets sold by the plaintiffs and bearing their trade-mark. This mark, the learned counsel said, was numbered 31,885 in class 3 under the Trade Marks Act of 1835, and was re-registered on the 31st of March, 1883, it having been then used in the firm for 29 years, from August 13, 1875, thus dating back to August 1846. On the 16th of November last, a purchase of the alleged colourable imitation was made by Mr. R. W. Mason, acting on the instructions of the solicitor for the applicants, at a chemist's shop at 47 Fulham Road, where the defendant had been carrying on business. He appeared to have moved to 154 Queen's Road, Bayswater, and to this address Mrs. Stollery, wife of a clerk, wrote for "Steedman's Soothing Powders," and received by post a box bearing on the outside the words "Steedman's powders for children," the packet corresponding with the wrappers impeached as infringing the plaintiffs' rights. The learned counsel put in affidavits testifying to these facts, and also an affidavit from Mr. T. A. Twist, of 272 Walworth Road, one of the managing partners of the plaintiffs' firm, showing that the wrapper had been continuously used in the firm since August 1875, and adding that it was designed for the purpose of distinguishing the soothing powders manufactured by the firm by a process known only to them. Mr. Marten went on to say that a writ was issued in February, and as they were unable to find defendant to serve him, but discovered that registered letters reached him, his lordship allowed a substituted service on the 15th of April, and notice of motion had been sent to defendant in a registered letter. He asked for an injunction to restrain the defendant, and for damages for wrongful uses. The defendant not putting in an appearance, nor being represented by counsel, his lordship granted the application in the terms of the notice of motion.

Agreement with an Assistant.

At the High Court of Justice, held in the Isle of Man, the case of Paterson *v.* Bell was heard last week. The plaintiff, Mr. A. C. Paterson, chemist, Strand Street, Douglas, had entered into the following agreement, dated February 20, 1889, with the defendant, who was to act as his manager: "Agreement between Alexander Paterson, Victoria Street, Douglas, of the one part, and William Bell, of Congleton, of the other part. It is mutually agreed that the same Bell undertakes to manage the branch shop for the same Paterson, at Strand Street, Douglas, Isle of Man, at a salary of not less than 80*l.* per annum (in case of the same being carried on profitably, a commission will be allowed at the end of the first twelve months, without prejudice), the manager to have house and gas free of all rent and taxes, with permission to sublet the house during the season, &c., for his own benefit. Should this engagement extend over three months from date, the said Wm. Bell undertakes not to commence business himself in Douglas, as a chemist or druggist, or to be an assistant or manager to any other chemist in the same place, after terminating his engagement with Mr. Paterson. Should he do so, he will render himself liable to a penalty of not less than 200*l.*" Under the agreement the defendant continued to manage the shop in question up to February 15 of the present year, when plaintiff asked him to look out for another situation, as the shop did not pay. On the Saturday after Good Friday the plaintiff offered Bell a month's salary to vacate the premises at once, but this he refused under his agreement. According to the defendant's statement, on March 10 Mr. Paterson asked him to stop the season, and that he, of course, agreed. Later, as mentioned, defendant came to him and made the offer of a month's salary, and requested him to leave. Defendant declined to take the money, as he did not think plaintiff could break the agreement in such an abrupt way. In deciding the case the judge said that as the commission was not ascertained until the end of the year, the agreement did not terminate till then. There was no mention of a month's notice in the agreement, and it was not in the power of the plaintiff to put an end to the agreement by simply offering a month's wages.

Gazette.

PARTNERSHIPS DISSOLVED.

Bridgwater, T., Tonge, M., & Briggs, G. C., Harrow-on-the-Hill, surgeons, so far as regards T. Bridgwater.

Snell & Heim, City Road, E.C., surgeons.

Wileox & Thompson, Woolwich, physicians.

THE BANKRUPTCY ACT, 1883.

Receiving Orders, Public Examinations, Adjudications, Dividends, &c.

Lyon, William, Cambridge, late chemist. R. O. Ex. May 14, at 11. —Adj.

THE BANKRUPTCY ACT, 1869.

Declaration of Dividend.

Hutton, R. H., Queen Anne Street, Cavendish Square, bone-setter, 2s. 6*d.*, first and final, any day, P. Paget, Bankruptcy Buildings, Lincoln's Inn Fields.

EXTRACT FROM THE REGISTER OF DEEDS OF ARRANGEMENT.

The following deeds of arrangement with creditors have been filed at the Bills of Sale Office, under the provisions of the Deeds of Arrangement Act, 1887. Some of these deeds are for the purpose of carrying out compositions with creditors (and such are specified below), but the great majority of them are "assignments" in the ordinary form, to a trustee or trustees, for the benefit of creditors. The Act referred to expressly provides that registration shall not give validity to any deed which is an act of bankruptcy, and there is no provision, in the Act, making any of these arrangements binding upon dissenting creditors.

Edington, John, 10 Hardshaw Street, and Poplar House, Croppers Hill, St. Helens, wholesale druggist and drysalter. Trustee: George Mahon, 26 North John Street, Liverpool, C.A. Date, April 26; filed, May 3; unsecured liabilities, 1,815*l.* 0*s.* 6*d.*; estimated net assets, 175*l.*; creditors fully secured, 212*l.*

	£	s.	d.
Ayrton & Saunders, Liverpool	29	11	5
Bailey, M., St. Helens	18	17	9
Bryant & May, London	35	1	8
Colman, J. & J., Liverpool	19	16	0
Davidson & Son, Liverpool	35	18	9
Edington, G. E., St. Helens	318	0	0
Edington, G. E., St. Helens	105	0	0
Gossage, W., & Sons, Widnes	10	2	6
Guyot, G., & Son, London	13	8	8
Hatchman, James	22	0	0
Hedley, Gamble & Co., Liverpool	12	19	8
Huntington, J., Liverpool	20	0	5
Manchester and Salford Bank	426	0	0
McEachen & Co., Liverpool	27	14	2
Midland Vinegar Company, Birmingham	165	1	4
Peek, Frean & Co., London	18	19	9
Pennington, John	47	0	0
Purnell, Webb & Co., Bristol	86	3	0
Raimes & Co., York	40	17	9
Ripley & Co., Liverpool	17	6	8
Smith & Bateson, Liverpool	13	5	5
St. Helens Corporation, St. Helens	15	0	0
Swift, W., St. Helens	10	0	0
Taylor, J. & J., Liverpool	31	10	10
Wood & Co., St. Helens	10	0	
Wright, Crossley & Co., Liverpool	61	13	11

Trade Report.

Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., May 8.

THERE is not much news to report in the drug and chemical markets this week with the exception of a few articles in which there has been some stir, especially in iodine and camphor. In the department of chemicals cream of tartar is slightly better in price; chrysarobin is also reported dearer. Santonin has slightly recovered, and strychnine is scarcely obtainable on the spot, and higher in price. Sulphate of copper for prompt delivery is also dearer. Quinine flat and unchanged. The price of iodine has been fixed again by the convention at the old figure. Oxalic and tartaric acids are a shade easier, and the quotations for antimonial preparations have been reduced. The decline in the value of camphor has continued, and for the moment refined camphor is difficult to quote. In drugs we have to report a slight increase in the price of American peppermint oil; castor oil and Dutch linseed are also somewhat dearer, and the better classes of acacia gum are in good demand. Jalap remains firm, and the price of cinchona is well maintained. Spermaceti, calabar beans, and fenugreek seed are quoted lower. In heavy chemicals and drysalteries the following are the principal alterations:—Tumeric, Sticklac, and Irish moss are higher in price, and shellac is very firm. Benzol, bleaching-powder, and sulphate of soda are also firmer and slightly dearer, but bicarbonate of soda is easier. New tamarinds are also lower, and the same applies to ordinary olive oil. On the other hand, there are higher quotations for palm oil and petroleum. Good qualities of cowrie gum are dearer, but otherwise varnish gums are lower, especially Manilla copal, damar (5*s.*), and gum animi, bean and pea sizes, which are from 2*s.* 6*d.* to 5*s.* cheaper. Spices are mostly firm and dearer, with a large business in black and white pepper and Zanzibar cloves. Chillies and and Jamaica ginger are also higher.

ACID (CITRIC).—The market is quiet but unchanged, and the price may be called from 1*s.* 3¼*d.* to 1*s.* 3⅜*d.* per lb. The imports of lemon and bergamot juice from Sicily into London and Liverpool during the last six years have been as follows:—

—	1885	1886	1887	1888	1889	1890
1st quarter	1,597	492	1,698	1,914	2,132	1,892
2nd „	925	370	579	1,0 9	1,353	
3rd „	412	443	928	618	567	
4th „	316	513	271	332	364	
Total ..	3,250	1,818	3,476	3,843	4,416	

The exports of English-made citric acid by sea for the first four months of this year were 2,168 cwts., and 3,919 cwts. from June 1 to December 31, 1889. The total exports of citric acid cannot be shown, as no returns are supplied for shipments by Great Eastern Railway Company *viâ* Harwich, or by the different lines of railways for France.

ACID (OXALIC).—Lower prices are said to have been accepted—viz., 3½*d.* per lb. net. for prompt delivery. Others quote 4½*d.* less 20 per cent.

ACID (TARTARIC).—A slow and weak market with second-hand sellers on the spot at 1*s.* 2¼*d.* per lb. for crystals and 1*s.* 2⅝*d.* per lb. for powder, but the manufacturers quote higher prices than these, and for forward delivery also 1*s.* 2½*d.* to 1*s.* 2⅝*d.* per lb. is asked.

ALOES.—The *Cape* steamer which arrived to-day has brought a consignment of 119 cases.

ANISE.—*Star-anise* is still held at very high prices, although we believe that from 110*s.* to 115*s.* per cwt. would buy good genuine quality. *Russian* anise dull of sale at 18*s.* to 19*s.* per cwt.

ANTIMONY.—Our market for crude Japanese antimony is very quiet, there is scarcely any trade on the spot, and 40*l.* is the nominal quotation. The price of antimonial preparations has been reduced by the manufacturers, *Crocus* being now 70*s.* (powdered, 73*s.*); *Niger*, 55*s.* (powdered, 58*s.* per cwt.); and *Antim. tart*, 1*s.* 3*d.* per lb. for both powder and crystals.

BALSAM COPAIBA.—At Liverpool the price of 2*s.* 7½*d.* per lb. was recently accepted for a few barrels of very fine bright *Maranham* balsam, while cloudy quality sold at 2*s.* 6*d.* per lb.

BALSAM (PERU).—Holders remain pretty firm at the prices last quoted, but we do not hear of any business of importance.

BENZOL.—Firm, 90 per cent. 3*s.* 8*d.* to 3*s.* 9*d.*, 50 per cent. 2*s.* 9*d.* to 2*s.* 10*d.*

BORAX.—Held at 30*s.* for the best brands, other varieties and second-hand borax selling at 28*s.* to 28*s.* 6*d.*

CALABAR BEANS tending lower owing to continued arrivals in Liverpool. The price there is now not above 8*d.*

CAMPHOR (CRUDE).—The "sales without reserve" at the last drug auctions seem to have demoralised the market altogether, and it is exceedingly difficult to give any reliable quotations to day. We hear it said that business has been done through the week at 140*s.* per cwt. for Japan camphor on the spot, and there are rumours of even lower prices, viz., 135*s.* The report of a sale of camphor for prompt shipment at 125*s.* per cwt. c.i.f. Hamburg is also confirmed, and it is added that there are no buyers at that figure for "c.i.f. London" to-day. But, on the other hand, we hear that when the price of 125*s.* c.i.f. London was mentioned there were several buyers in the market, but the would-be sellers withdrew their quotation. Quotations from Japan are said to be considered above the London and Hamburg parity. The *Breconshire* arrived on May 5 with 538 tubs from Kobe.

CAMPHOR (REFINED).—The *English* refiners have further lowered their quotations from 2*s.* 6*d.* to 2*s.* 2*d.* per lb. for *Bells*. But even now they are still much above the quotation of second-hand holders, who are talking of 1*s.* 8*d.* per lb. to-day as the price for *German* refined camphor. The market is quite unsettled, and business seems almost impossible at present.

CASCARA SAGRADA.—Very dull of sale. From America 38*s.* per cwt. c.i.f. terms is quoted, and 40*s.* in London, but we think that an offer of 38*s.* per cwt. London terms would not be refused.

CINCHONA.—The periodical auctions on Tuesday comprised:—

	Packages		Packages	
Ceylon bark	2,340	of which	1,951	were sold
East Indian bark ..	759	„	672	„
Java bark	1	„	1	„
South American bark	1,048	„	234	„
Total	4,148	„	2,858	„

The assortment offered was of good average quality, and contained several parcels of unusual excellence, especially among the renewed *Succirubras* from Ceylon and India. There was also a larger proportion of *Ledger* barks than is generally seen, and some fine lots of *Officinalis* from Ceylon. A large quantity of South American cultivated *Calisayas* was also sold, but much of it was rather weak and irregular. Speculators purchased pretty freely when suitable piles offered, two brokers, supposed to be acting for such investors, taking about 70,000 lbs. of bark between them. Much of the Indian-grown bark offered was of old import, and in several instances the limits placed on the Ceylon barks were too high to lead to business. A fairly steady tone

prevailed throughout the sales, and the unit remained unchanged at $1\frac{5}{8}d.$ to $1\frac{3}{4}d.$ per lb. according to quality. The following are the approximate quantities bought by the principal buyers:—

	Lbs.
Agents for the Mannheim and Amstordam works..	135,244
" the American, French, and Italian works	121,488
" the Brunswick factory	114,336
Messrs. Howards & Sons	83,474
Agents for the Auerbach factory	58,506
" the Frankfort o/M. and Stuttgart works	49,353
Mr. Thomas Whiffen	24,967
Druggists and Speculators	86,473
Total quantity sold	673,841
Bought in or withdrawn	224,994
Total amount of bark catalogued	898,835

It should be well understood that the mere weight of bark purchased affords no guide whatever to the quinine yield represented by it, firms who buy a small quantity of bark by weight frequently taking the richest lots, and *vice versâ*. An analysis of the catalogues gives the following prices for sound bark:—

Ceylon Bark.—*Original*: Red varieties.—Dull to fair, partly dusty and woody chips, $1\frac{3}{4}d.$ to $2\frac{1}{2}d.$; good bright ditto, 3*d.* to 4*d.*; fair to good bold bright spoke shavings, $2\frac{1}{2}d.$ to $4\frac{1}{2}d.$; dust, $1\frac{1}{2}d.$; dull and dusty to fair bold mixed root, 2*d.* to $4\frac{1}{2}d.$ per lb. Grey varieties.—Ordinary dust, $1\frac{1}{2}d.$; fair shavings, 4*d.*; a large quantity of common weak to fair quilly chips, 2*d.* to 4*d.*; a few good lots, $4\frac{1}{2}d.$ to 5*d.* per lb.; fair to good, but dusty root, 3*d.* to $6\frac{1}{2}d.$ per lb. Yellow varieties.—Common weak and dull chips, $2\frac{1}{2}d.$ to $4\frac{1}{2}d.$; fair to good bright Ledger chips, 6*d.* to $8\frac{1}{2}d.$; a fine lot, 11*d.*; chips and shavings mixed, 6*d.* to 7*d.*; ordinary weak Calisaya twigs, $1\frac{3}{4}d.$; fair to good rich root, $5\frac{1}{2}d.$ to $10\frac{1}{2}d.$ per lb. Hybrid chips, 2*d.* to 4*d.*; root, 3*d.* to $3\frac{1}{2}d.$ per lb. *Renewed*: Red varieties.—Ordinary dusty and weak to fair branchy chips, $1\frac{3}{4}d.$ to 5*d.*; weak to good bold bright spoke shavings, $2\frac{1}{2}d.$ to 8*d.*; dust, $2\frac{1}{2}d.$ Grey ordinary small quilly to good strong chips, 4*d.* to 9*d.*; good bright shavings, 10*d.*; fair ditto, 7*d.* Yellow stem chips, fair to good strong, 5*d.* to 10*d.*; shavings, 4*d.*; fair Calisaya shavings, $6\frac{1}{2}d.$ Hybrid chips $2\frac{1}{2}d.$ to $3\frac{1}{2}d.$ for common, and 5*d.* to 7*d.* per lb. for good quality.

East Indian Bark.—*Original*: Red varieties.—A good quantity of ordinary to fair bright quilly spoke shavings, $2\frac{1}{2}d.$ to 4*d.*; ordinary to fair chips, 2*d.* to 4*d.* Dull to fair grey chips, 2*d.* to $4\frac{1}{2}d.$; good quilly branch chips, 5*d.* to $8\frac{1}{2}d.$; root, $3\frac{1}{2}d.$ per lb. Fair hybrid shavings, 4*d.* to $4\frac{1}{2}d.$; dull root, 3*d.* per lb. Yellow varieties.—Fair to good bold branchy chips, 5*d.* to $8\frac{1}{2}d.$; spoke shavings, $4\frac{1}{2}d.$; dusty branch chips, 3*d.* to 5*d.* per lb. *Renewed*: Red varieties.—Weak to fair bright partly dusty chips, $2\frac{1}{2}d.$ to 4*d.*; fair shavings, 3*d.* to $3\frac{1}{2}d.$; good bright strong ditto, 6*d.* to 7*d.* per lb. Fair quilly grey chips, 6*d.* per lb. Yellow ditto also 6*d.* per lb. Hybrid shavings, $6\frac{1}{2}d.$ to 7*d.* per lb.

South American Bark.—Of cultivated Bolivian *Calisaya* about 22,000 lbs. (234 bales) were sold, fine bold even quill at 1*s.*, damaged ditto at $10\frac{1}{2}d.$ to $11\frac{1}{2}d.$ per lb., and fairly good to ragged and irregular quill at $6\frac{1}{2}d.$ to $8\frac{1}{2}d.$ for sound, and from 5*d.* to 8*d.* per lb. for damaged lots. Of *Cuprea* bark 734 packages, nearly all of old import, were again bought in, bids of $2\frac{1}{2}d.$ to $3\frac{1}{2}d.$ per lb. being refused. For 70 packages of *Soft Colombian* bark (horse-head brand), imported in 1883, the price of 3*d.* per lb. is asked.

The imports from all parts since our last report have been 456 packages only.

Cochineal.—A quiet market with fair sales of small parcels. Good to fine bold *Teneriffe* from $10\frac{1}{2}d.$ to 1*s.* 2*d.*, and good silvers 11*d.* to 1*s.*

Cocoa Butter.—At the monthly auctions on Tuesday 250 2-cwt. cases of *Cadbury's* cocoa butter sold at 1*s.* $2\frac{1}{8}d.$ to 1*s.* $2\frac{3}{4}d.$ per lb.

Copper (Sulphate).—Firmly held on the spot, and also rather better for forward delivery, 25*l.* for good brands, and buyers at 19*l.* for delivery September to December, but no sellers at that quotation.

Cream of Tartar.—The market is slightly higher since last week, but rather flat at the close. We call the quotation for best French crystals 101*s.* 6*d.* to 102*s.* per cwt., with buyers at the lower figure.

Cutch.—The market remains very firm here, with sales at full prices for good brands, *star B* tablets selling at 32*s.* 6*d.* per cwt. The following are the current quotations for cutch in Liverpool: *Engine* in tablets at 35*s.* 6*d.* to 36*s.*; *double Eagle* at 34*s.* to 34*s.* 6*d.*; *Star B* and *Flag B B* at 32*s.*, and *R S* in slabs at 23*s.* to 24*s.* per cwt.

Fenugreek Seed has been arriving in large quantities lately, and is quoted at lower prices, viz., 5*s.* $7\frac{1}{2}d.$ to 5*s.* 6*d.* per cwt. for *Egyptian* with sales at those rates.

Galls.—*Japan* galls are nominally held for more money but we do not hear of any actual business. In *Turkey* galls the market is also very quiet.

Gambier.—The market is quiet and we only hear of small sales of *block*, at 27*s.* on the spot (150 bales) and 27*s.* $1\frac{1}{2}d.$ for April-May.

Goa Powder and chrysarobin are higher in price, the quotation for the latter being now 11*s.*

Guinea Grains are exceedingly scarce, and the price is momentarily almost nominal in the absence of offers.

Gum Arabic.—The arrivals by two East Indian steamers this week have been very heavy. For the better grades of Arabic gums there has been a rather better enquiry since last week. *Senegal* is firm at 85*s.* per cwt. for Bas-de-fleuve and there has also been an improved demand for good white *Mogadore* gum.

Iodides.—Immediately after the settlement of the price for crude iodine, the manufacturers of iodides, officially re-established their former quotations, viz., *potassium iodide* at 12*s.* to 11*s.* 6*d.* per lb.; *sodium iodide* 13*s.* 6*d.* to 13*s.* 3*d.* per lb.; powdered *iodoform* 15*s.* 9*d.* to 15*s.* 6*d.* per lb., and *resublimed iodine* at 13*s.* 3*d.* to 13*s.* per lb. according to quantity.

Iodine.—Last Friday morning it became known that the convention in this article had been renewed, and that the price had definitely been fixed again at 9*d.* per oz. There is very little offering now in the second-hand.

Irish Moss.—The few holders are still able to take advantage of the scarcity of this article by standing out for high prices, say 12*s.* 6*d.* to 17*s.* 6*d.* per cwt. according to quality.

Jalap.—The market remains very firm, and we hear of further small sales at 1*s.* 6*d.* per lb. for good Vera Cruz. *Jalapine* is quoted up to 35*s.*

Juniper Berries.—In spite of the unusually low prices at which this article is now obtainable, the demand remains very slow.

Linseed.—*Dutch* seed is rather firmer at 46*s.* for good quality. *Russian* seed is worth 41*s.* to 42*s.*, and *Sicilian* 53*s.* to 55*s.*

Morphia.—Quiet and unchanged in price.

Musk.—Some of the holders report sales of fine Tonquin pods on the basis of the last auction prices, but we have not been able to confirm this.

Musk Seed.—The enquiry has been rather larger lately, but prices show no recovery as yet.

Nux Vomica.—Several hundred bags have been landed since our last report. The market remains firm at 12*s.* 6*d.* to 12*s.* 9*d.* per cwt. for good pale silky quality.

Oil (Cod-Liver).—Norwegian still depressed and offering at very low rates. A quantity of *Japanese* cod-liver-oil, partly imported 9 years ago, was recently sold at the low rate of 15*s.* per cwt. It is said that there is still a large quantity of this oil in stock here.

Oil (Castor).—Quiet for all descriptions; good Calcutta seconds, $2\frac{3}{4}d.$ to $2\frac{5}{8}d.$ per lb. The Liverpool market is higher for good *Calcutta seconds*, as buyers have secured all available parcels of that grade up to $3\frac{19}{32}d.$ per lb. There is now nothing offering below $3\frac{5}{8}d.$ per lb.

Oils (Essential).—Most of the holders of *Star-anise* oil stand out for 6*s.* 2*d.* per lb., but we hear that sales have been made below that figure. Tonquin *Star-anise* oil is said to have sold at 5*s.* $11\frac{1}{2}d.$ per lb., c.i.f. terms, but the agents say that they cannot continue to sell more at that price. *Cassia* oil unchanged at 3*s.* 6*d.* to 3*s.* 7*d.* per lb. Oil of *Cloves*

is firm at 3*s.* 6*d.* to 3*s.* 9*d.* for first, and 3*s.* 3*d.* for second quality English. English *Sandal-wood* oil, 17*s.* per lb. West Indian *Oil of limes* is said to be getting scarce, while there is no prospect of any considerable arrivals from the West Indies for some time to come. *Menthol* is reported to have been sold on the spot to-day at 7*s.* 6*d.* per lb. for good native crystals. *Otto of rose*: Rain has been much wanted in the growing districts for some time, although the latest reports say that there have been satisfactory rains, though hardly sufficient as yet. American *Peppermint* oil (H.G.H.) is dearer in price, being cabled at 11*s.* c.i.f. terms, from New York. We think that 11*s.* 1½*d.* would still buy here, though 11*s.* 3*d.* is asked.

Oil (Olive).—There is an inclination among the owners of fine eating oils to ask higher prices, but the demand for consumption is very slow at present, and the market is not quotably dearer. Common oils are lower; *Mogadore* at 34*s.* to 34*s.* 6*d.*, and *Spanish* at 39*s.* on the spot; Silician not offering at present.

Oils (Various).—*Cocoanut oil*: steady of sale at 25*s.* 6*d.* for Ceylon in pipes on the spot, and 25*s.* c.i.f. terms for shipment; for Cochin oil on the spot 28*s.* 9*d.* to 29*s.* is asked, and good quality offers for shipment at 28*s.* 6*d.*; Mauritius, in hogsheads, at 26*s.* *Cottonseed oil*: unchanged in price and steady, crude, 19*s.* 9*d.*, and refined, ordinary to fair quality, 22*s.* 3*d.* to 22*s.* 6*d.*; the price of refined oil in Hull is 20*s.* 7½*d.*, packing extra, and of crude oil 18*s.* 7½*d.* to 18*s.* 6*d.* *Linseed oil*: fairly steady, spot, 24*s.* 1½*d.* to 24*s.* 3*d.*; the Hull market is reported quiet, at 23*s.* 9*d.*, packing extra. *Palm oil*: dearer, at 25*s.* 6*d.* 25*s.* 9*d.* for fine Lagos. *Petroleum*: firmer. American, spot, 5$\frac{9}{16}$*d.* to 5⅝*d.*; September-December, 5¾*d.* to 5$\frac{13}{16}$*d.*; Russian, 5⅛*d.* to 5$\frac{3}{16}$*d.* on the spot; and September-December, 5$\frac{9}{16}$*d.* to 5⅝*d.* *Rape oil*: firm brown, on the spot, 30*s.* 9*d.* to 31*s.*, and refined oil, 32*s.* 6*d.* *Fish oils* are slow of sale and generally easier than they were some time ago.

Opium.—The London market remains very quite indeed, and there is scarcely any business doing in manufacturing-opium, as the morphia-makers are waiting for more definite news regarding the coming crop before purchasing to any extent. Prices are nominally unaltered. In *Persian* opium there has been a good demand for export, and from 13*s.* to 13*s.* 9*d.* per lb. according to quality is said to have been paid. News from Smyrna, dated April 30, states that beneficial rains have fallen in the growing districts lately, and if the weather continues favourable, the new crop, it is thought, may reach 5,000 cases. In that case prices on the Smyrna market are not unlikely to decline to some extent. The total stock (first and second-hand) in Smyrna is estimated at 1,050 cases.

Orris Root.—The supplies of this article have become exceedingly restricted everywhere, and prices are so high now that only retail lots are being sold. Good to finest picked *Florentine* root is quoted at 60*s.* to 70*s.* per cwt.

Potash Salts.—*Bichromate*: Quiet but steady at 4*d.* *Chlorate*: Unchanged and might be had at 4⅝*d.* *Yellow prussiate*: 9½*d.* for English and Foreign brands.

Quicksilver.—There is very little change in the market. The principal importers ask 10*l.*, but second-hand holders sell at 9*l.* 13*s.* to 9*l.* 13*s.* 6*d.* *Italian* quicksilver (of which 900 bottles arrived this week) has changed hands at 9*l.* 12*s.* 6*d.* per bottle.

Quinine. — The following equivalents of sulphate of quinine were purchased by the principal buyers of cinchona at the last Amsterdam auctions: Messrs. C. L. Schepp & Zoon, Rotterdam, 72,365 oz.; the Brunswick Quinine Works, 64,587 oz.; the Mannheim and Amsterdam Works, 61,563 oz.; the Auerbach Works, 43,878 oz.

Santonin.—After the recent heavy decline in value, the market has recovered to some extent.

Scammony.—The sale of a parcel of 22 bales good scammony *Root* is reported from Liverpool, at the high price of 47*s.* 6*d.* per cwt. In London 50*s.* per cwt. is required by second-hand holders. *Resin*, 11*s.* 6*d.* to 12*s.* per lb.

Shellac.—The private market has been somewhat unsettled this week, but at the auctions a steady tone was maintained, and of 694 cases offered, about 350 sold at fully the previous auction rates; 5 cases good bright orange, from Kurrachee, at 84*s.*; fair reddish to good pale second orange, worked, 77*s.* to 80*s.*; dull to fair red, 75*s.* to 77*s.* per cwt. Fine free unworked AC *Garnet*, 78*s.* *Button lac*: Fine bright blood lac, 100*s.*; good firsts, 94*s.* to 95*s.*; and ordinary dark thirds, 78*s.* per cwt. At the call (which since Monday takes place at noon, instead of at 3 P.M.) the following were the quotations to-day:—

	May	June	July	Aug.	Sept
Orange TN, sellers	79/	80/	80/6	81/	82/
" buyers	78/6	79/6	80/	80/6	81/

Garnet AC, sellers at 79*s.* 6*d.* and buyers at 77*s.* in all positions.

After the call 100 cases TN changed hands for September delivery at 81*s.* per cwt.

Soy.—China soy continues in a quiet state, the nearest price being 1*s.* 3*d.* per gallon.

Spermaceti.—Rather easier, and there are sellers here at 1*s.* 5*d.* per lb. for American refined, London terms. In New York the price is equal to 1*s.* 7*d.* now.

Spices.—*Cayenne pepper*: Dearer, 4 cases of fine bright Natal, just imported, sold at 1*s.* 11½*d.* per lb. *Chillies* have been firmer, and sales are reported of Zanzibars in good quality at 37*s.* At the auction, ordinary dark to medium sold at 31*s.* to 34*s.* 6*d.*; for a lot of very fine new Sierra Leone 50*s.* was paid; and for fine bright Natal 63*s.* 6*d.* per cwt. *Cassia lignea*: Dull of sale at 22*s.* nominally, 187 cases slightly sea-damaged sold without reserve at auction at 27*s.* 6*d.* *Cloves* have been in good demand both on the spot and for further delivery during the week; and good Zanzibar changed hands at 5⅞*d.* per lb. At the auctions, about 860 bales were offered, but the demand had become weak, and only a small portion sold at 5¾*d.* for fair, and 6⅛*d.* for a few lots of exceptionally fine bright. *Ginger*: Cochin in fair demand, somewhat irregular, but, on the whole, steady prices. About 600 packages partly new crop sold at auction, rough, fair to fine bold, 23*s.* to 25*s.* 6*d.*; washed small to picked bold bright, 23*s.* 6*d.* to 44*s.*: small to bold good bright cut, 32*s.* to 69*s.* Jamaica ginger is in strong demand, and from 3*s.* to 4*s.* dearer; common to rough washed, 72*s.* to 81*s.* 6*d.*; medium to good bright, 82*s.* to 101*s.*; and fine to selected bold, 102*s.* 6*d.* to 125*s.* *Mace* quiet at 2*s.* 5*d.* to 2*s.* 8*d.* for fair to good bright West Indian. *Nutmegs* in good demand at steady rates. *Black Pepper* has been in strong demand privately during the week; and Zanzibar, on the spot, has sold as high as 5¾*d.* per lb. At the auctions the market also remained firm. *White pepper* is nearly ½*d.* dearer since last week, Penang at 7½*d.*; and Singapore, 9¾*d.*

Sticklac.—There has been a strong demand this week for Siam, and the price has risen fully half-a-crown. Two hundred cases, good quality, fairly free from wood, have been done at 47*s.* 6*d.* to 50*s.* and holders now require 55*s.*

Strychnine.—The market is firmer, and it is said that on the spot there is nothing to be had. For forward delivery June 2*s.* 4*d.* is asked, but we should think that 1*d.* less would buy. A short time ago sales were made at 2*s.* 1*d.*

Tamarinds.—Rather lower prices are now expected for the new Barbadoes crop, 18*s.* 6*d.* being the price paid for nearly 200 packages since Wednesday's auctions.

Tea.—The market is a little irregular. In Tuesday's sale Congous sold at steady rates, though some high-cost first-crop Oonfaas showed good value at 6*d.* to 6½*d.* On the other hand Wednesday's sale was distinctly easier for grades under 5*d.*, and fair liquoring Moning, from 4½*d.* to 4¾*d.*, was cheaper than we have seen it for weeks past. Souchongs are in smaller supply and firmer, and scented and green teas both show a steady market. *Assams* keep very steady for lower grades, with common Souchongs at 7*d.*, and common Pekoes at 8*d.*, neither very desirable; but broken Pekoes are less in demand and inclined to be easier. *Ceylons* are distinctly lower for commoner sorts for price, Souchongs selling down to 7*d.*, though very poor stuff. Good value may be had from 9*d.* to 11*d.*, and these are the grades most worth attention.

Turmeric is still advancing, the rise being ascribed to the shortness of the supplies coming forward from India this season, as the prices have been so low that it has not paid to gather the root. Good bright *Madras* is now quoted at

15*s.*, and a few bales of very fine bold finger have been done at 16*s.* *Bengal* 11*s.* per cwt. In the annual report of Her Majesty's Inspectors of Explosives, which has just been issued, turmeric is referred to as a material which has been licensed as an ingredient in the manufacture of smokeless powder, and has been favourably reported on as such.

WAX (BEES').—Foreign varieties are firmly held, *Jamaica* being particularly scarce. *Chilian* wax is also stiffer, and has sold at up to 7*l.* for good yellow quality.

CHEMICALS IN THE NORTH OF ENGLAND.

THE market for heavy chemicals is still very unsettled, and prices keep fluctuating.

The attempted formation of a "ring" in Lancashire to maintain the price of caustic soda at a fixed minimum has fallen through, owing to a want of reciprocal confidence amongst the manufacturers.

The manufacture of caustic soda by a new process will shortly be commenced on the Tyne, but as the experiments have been carried on privately very little is as yet known about the method adopted for working the process.

It is reported that the manufacture of magnesia will soon be re-commenced by the Seaham Chemical Works Company, Seaham Harbour. This article used to be manufactured at these works some years ago, under the management of Messrs. Watson, Kipling & Co., but it had been abandoned, as the prices had fallen too low to render the manufacture profitable any longer.

The quantity of chemicals exported from the Tyne during last month shows a slight decrease in the total tonnage, as compared with the corresponding month of last year. The figures are as follow:—

—	1889	1890
	Tons	Tons
Alkali and soda ash	1,590	1,175
Bicarbonate of soda	8	10
Bleaching-powder..	2,035	3,278
Manure	815	579
Soda crystals	2,482	2,701
Sulphate of soda	6	87
Other chemicals	2,877	1,657
Total tons	9,813	9,487

BICARBONATE OF SODA is again lower in price, with little demand at the moment; 5*l.* 15*s.* per ton in 1-cwt. kegs, f.o.b. Liverpool, quoted for prompt delivery. Larger-sized casks proportionately lower.

BLEACHING-POWDER continues quiet, but prices are a little stiffer, 5*l.* per ton in softwood casks, f.o.r. Widnes and St. Helens, and 5*l.* 10*s.* to 5*l.* 12*s.* 6*d.* per ton in hardwood casks, f.o.b. Liverpool. Tyne prices are slightly under last week's rates—viz., 5*l.* to 5*l.* 2*s.* 6*d.* per ton in softwood casks, f.o.r. or f.o.b.; Glasgow rates unchanged at 5*l.* 5*s.* to 5*l.* 7*s.* 6*d.* per ton f.o.r., and 5*l.* 10*s.* to 5*l.* 12*s.* 6*d.* ex ship Thames. Usual extras of 20*s.* per ton for 1-cwt. kegs, 15*s.* per ton for 1½-cwt. kegs, and 5*s.* per ton for 3-cwt. casks.

CAUSTIC SODA has been very unsettled. After dropping to 8*l.* 10*s.* per ton for 70-per-cent. *White*, prices rallied to 9*l.* per ton; but the tendency is again downward, and quotations are now 8*l.* 15*s.* per ton for 70-per-cent., 7*l.* 15*s.* per ton for 60-per-cent., and 9*l.* 10*s.* per ton for 74-per-cent., f.o.b. Liverpool. Newcastle 77-per-cent. is steady at 10*l.* per ton for solid in drums, and 13*l.* per ton for ground in 3-4-cwt. barrels, f.o.r. or f.o.b. Tyne. *Cream* caustic quiet at 7*l.* 7*s.* 6*d.* on rails, and 7*l.* 10*s.* to 7*l.* 15*s.* per ton, f.o.b. Liverpool, according to brand.

CHLORATE OF POTASH unchanged, and quotations range from 4¾*d.* to 4⅞*d.* per lb. at Liverpool, Glasgow, or Tyne for prompt delivery.

HYPOSULPHITE OF SODA very quiet, and prices same as last quoted—5*l.* 5*s.* per ton in 5-7-cwt. casks, and 5*l.* 15*s.* per ton in 1-cwt. kegs, f.o.b. Tyne; 6*l.* 10*s.* in 1-cwt. kegs, and 6*l.* per ton in 5-7-cwt. casks, f.o.r. Manchester and Liverpool.

SODA ASH continues steady, and demand good. *Caustic* quoted 1⅝*d.* to 1½*d.* per degree, and *Carbonated* 1½*d.* per degree, f.o.b. Liverpool. Tyne makes quoted 1¼*d.* per degree less 3½ per cent., f.o.b.

SODA CRYSTALS unchanged and prices firm, 3*l.* per ton in 3-cwt. barrels net weight on rails, and 3*l.* 5*s.* per ton, f.o.b. Liverpool; 2*l.* 11*s.* per ton in casks, gross weight; 2*l.* 13*s.* 6*d.* per ton in 1-cwt. bags, net weight; 2*l.* 11*s.* per ton in 2-cwt. bags, net weight, f.o.b. Tyne, and 2*l.* 17*s.* 6*d.* to 2*l.* 18*s.* per ton in casks, gross weight, ex ship Thames.

SULPHATE OF COPPER slightly advanced, and prices now asked 25*l.* 10*s.* to 25*l.* 15*s.* per ton, f.o.b. Liverpool for prompt. Easier prices for forward according to time of shipment.

SULPHATE OF SODA in better demand, and prices advanced to 26*s.* to 28*s.* 6*d.*, f.o.r. Widnes or St. Helens in bulk. Newcastle quotation reduced to 33*s.* 6*d.* per ton in bulk, and 43*s.* 6*d.* per ton ground in casks, f.o.b. Tyne.

THE GERMAN MARKETS.

HAMBURG, May 6.

THE first week of May has not passed here without exercising a visible influence on all branches of our market. It is true that the strikes in departments more or less intimately connected with the drug trade have not caused any considerable disturbance, but the general feeling among business men has been one of lack of speculative faith, and in consequence a quiet trade, mostly for consumption only, and in many cases a falling market, have to be recorded.

AGAR-AGAR.—We have to report a speculative enquiry for crude Japanese, of which large parcels have changed hands for delivery.

BALSAMS.—*Copaiba*: Well maintained in price; 36 cases Maracaibo of recent import have been absorbed by the second-hand. *Peruvian*: Quiet at 8 25m. to 8·50m. *Tolu*: More animated. Reports from New York have reacted upon our market, and genuine balsam is now scarcely obtainable under 2 95m. to 3m.

CAMPHOR.—The recent sales at low prices without reserve in London have caused a perfect panic on our market. Owners of camphor ran into the market from all sides, and considerable parcels of refined camphor changed hands at varying prices, but mostly exceedingly cheaply. A now floating parcel of crude camphor was also sold as low as 125m. per 50 kilos. c.i.f. terms. During the last one or two days buyers have plucked up courage, and it seems as if the article is going firmer again, although even to-day refined camphor is offering at 3.30m.

JALAP.—The tendency here remains very firm, 2.75m. is the price, and stocks are insignificant.

SPERMACETI.—Slightly easier, and obtainable at 3.45m.

WAX (JAPAN).—More money is wanted, spot and floating 85m. to 86m.

WORM SEED.—Parcels of good quality are much inquired for, and are being steadily bought up. Fair to good medium seed is quoted now at from 30m. to 37m.

FROM THE ANNUAL REPORT OF MESSRS. ZIMMER AND CO., FRANKFORT-ON-MAINE.

CINCHONA.—In a long review of this article, containing a good deal of information and statistics already familiar to readers of THE CHEMIST AND DRUGGIST, it is pointed out that difficulties in the way of the projected cinchona syndicate in Ceylon are exceedingly great, especially as there are on that island a large number of planters—very nearly 1,000—among whom only a very few are not dependent upon financial support in England. A great part of the English money advanced to these planters was lent at the time when the anticipations of profit from cinchona-growing were very large, and, owing to the decline in the industry, cannot be repaid at this moment. Many planters are, consequently, forced every year to consign their produce

to their English creditors, and are therefore not able to dispose of it freely. This is the reason that, even if they were so minded, the bulk of the planters would not be capable to give efficient assistance to any syndicate, unless their present liabilities were first liquidated by a large bank. With regard to the Indian cinchona plantations, it is pointed out that in addition to the Government gardens in the Neilgherries and at Sikkim there are a large number of private planters, mostly in the Wynaad district and in the Neilgherries, who own about five million trees. These plantations flourish very greatly, and the numerous cinchona diseases to which the trees are exposed in Java and Ceylon are unknown here, night frosts only causing occasional damage. Similar plantations have been established in other parts of the province of Madras, and also in Bengal, Coorg, and Mysore, and some of them yield very considerable harvests. On the other hand, the cinchona gardens of Travancore, at the southern point of India, seem to have been much neglected lately. The following is the area of the Indian plantations:—

	Acres
Government plantations in Sikkim	2,208
" " " Neilgherry	908
Private plantations in Bengal	1,355
" " " Madras..	6,444
" " " Coorg and Mysore	2,000

The total export from India from October 1 to September 31 was:—

	lbs.
1886-87	1,286,900
1887-88	1,449,315
1888-89	3,074,098

With regard to the cinchona plantations in Java, it is shown that at the Government undertakings the total average cost of the dried bark, including shipment and sale expenses, is 20·38 cents. per half kilo., and the gross proceeds 42·43 cents., showing a profit of 16·05 cents. per half kilo. The Ledger plantations are the most profitable, as they yield an average of 52 cents., equal to a net profit of nearly 100 per cent. It must, however, be considered that the Government plantations can be worked under exceptionally favourable circumstances. Referring to the market of druggists' barks during 1889 it is said that of the different varieties of Calisaya, Succirubra, and Ledgeriana a sufficient quantity is placed on the market to allow of an uninterrupted supply at cheap rates. Of these three the Succirubra is the most important as all the newer Pharmacopœias prescribe this bark, either by preference or exclusively. Thus, for instance, in the Austrian Pharmacopœia Calisaya and Succirubra were formerly admitted, but now Succirubra with a minimum alkaloidal percentage of 3½ is permitted, while in the new Dutch Pharmacopœia from 5 to 6 per cent. minimum is demanded.

CINCHONIDINE SULPHURATE.—The use of this salt is decreasing every year, and while only a few seasons ago it was exported in enormous quantities to America, the consumption of it in that country has fallen off in an astonishing degree lately. The same is the case with the salts of cinchonine, although the sulphate now in the Dutch Pharmacopœia has maintained its place. The only exception is sulphate of quinidine. In the Asiatic barks which are now used principally by the manufacturers, the percentage of quinidine is so slight that its separation no longer pays, and towards the end of the year 1889 a very pronounced scarcity of this alkaloid suddenly showed itself, coupled with an equally sudden strong demand. This caused the prices to rise so quickly that they almost equalled those of quinine, and it does not seem altogether impossible that one day quinidine will cost even more than quinine itself.

QUIN. ARSENATE.—In Southern countries there is a fairly considerable demand for this article, as the combined administration of quinine and arsenic is specially favoured by many medical men as particularly efficacious in malaria.

QUIN. HYDROCHLORATE.—This salt, specially recommended on various occasions by the best authorities on quinine salts, such as Binz and others, becomes more and more popular every year, and it seems as if in course of time it may altogether supersede the sulphate of quinine. Owing to its greater solubility and its greater power of agreeing with patients, it possesses pronounced advantages over the sulphate.

LONDON DRUG STATISTICS.

THE following figures refer to the stocks of the principal drugs in the port of London on April 30, 1890, and to the imports and deliveries during the first four months of 1890, as compared with the corresponding period of the preceding year:—

Article	Stocks		Imported		Delivered	
	1890	1889	1890	1889	1890	1889
Aloes ..cs & pkgs	8,907	7,337	2,449	1,574	1,780	1,226
" .....gourds	1,272	1,773	74	172	146	447
Anise, Star .. chts	71	94	—	40	—	85
Arrowroot ....cks	11,686	12,348	6,005	6,006	5,530	4,524
" bxs & tins	3,590	6,795	219	715	2,720	1,780
Balsams ..cks, &c.	2,301	373	198	73	341	120
Bark (Cinchona),						
S.American cases	431	486	2	7	33	30
" bls. &c.	29,275	34,524	2,863	2,540	5,674	2,313
E.I., Ceylon, and						
Java .....cs	551	1,433	322	731	172	635
" bls, &c.	27,904	27,308	18,187	23,749	14,359	17,557
Borax.....pkgs	377	587	21	6	121	37
Calumba .... "	1,690	1,610	161	99	355	333
Camphor .... "	765	270	3,334	96	2,602	758
Cardamoms ..chts	1,692	1,241	1,488	1,315	1,121	649
Cocc. Ind. bgs, &c.	108	305	—	—	64	44
Cochineal ....sers	5,262	4,718	2,321	1,381	1,462	1,578
Cream of Tartar cks	14	11	4	8	—	10
Cubebs .....bgs	161	15	4	32	152	141
Dragons' Blood chts	127	180	36	133	53	36
Galls, China, &c. cs	3,798	1,891	3,879	756	1,050	990
Turkey, &c...sks	4,061	4,079	2,463	3,819	2,140	2,457
Gums—						
Ammoniac pkgs	71	120	1	6	21	11
Animi & Copal pkgs	6,786	5,340	2,615	2,683	5,380	2,186
Arabic..... "	20,422	25,142	9,383	14,436	10,841	8,839
Asafœtida.. "	299	401	—	290	72	238
Benzoin .... "	2,370	2,173	1,390	1,055	1,113	769
Damar .... "	6,415	3,228	4,109	2,555	2,891	1,858
Galbanum.. "	35	—	24	—	23	—
Gamboge .. "	33	85	59	49	89	57
Guaiacum .. "	28	19	13	35	4	32
Kino ..... "	75	100	6	16	48	3
Kowrie ....tns	1,103	1,237	751	971	997	1,109
Mastic ....pkgs	16	43	—	24	11	12
Myrrh..... "	304	532	36	157	180	170
Olibanum .. "	5,395	3,539	3,761	3,677	2,105	2,836
Sandarac .. "	658	876	720	443	445	324
Tragacanth "	7,071	7,003	1,969	3,943	2,276	2,676
Indigo, Bengal chts	8,751	6,920	9,136	6,661	2,546	2,343
" Madras "	1,559	1,304	805	1,124	610	658
" Kurpah "	6,086	5,832	4,702	4,557	3,790	3,390
" Manilla Figs, &c "	742	1,183	135	703	169	452
" E. Indian "	17,133	15,259	14,778	13,045	7,115	6,843
" Spanish sers	2,465	3,263	3,026	3,556	2,114	2,312
Ipecac. .....pkgs	213	467	537	636	506	197
Jalap.....bls	75	73	27	—	23	14
Lac Dye .....chts	5,516	5,847	—	—	183	33
Nux Vomica pkgs	483	448	869	85	853	745
Oils—						
Anise .....cs	27	131	55	174	121	53
Cassia ..... "	41	52	180	104	169	69
Castor .....cks	474	627	414	210	351	158
" .....cs	4,076	3,521	2,881	809	2,021	4,296
Cocoa-nut....tns	2,015	2,251	1,752	2,149	2,343	1,384
Olive ..cks, &c.	1,681	932	3,213	1,747	2,315	1,183
Palm .....tns	13	30	27	41	33	74
Opium ..chts, &c.	—	1,538	—	288	—	367
Rhubarb.....chts	671	865	343	299	521	457
Safflower ..bls, &c.	400	559	68	—	121	31
Saltpetre .....tns	500	592	1,944	1,654	1,643	1,647
Nitrate of Soda tns	2,330	2,653	11,273	7,394	9,985	6,749
Sarsaparilla ....bls	283	388	373	551	368	549
Senna .... bls, &c.	3,256	1,590	2,364	657	2,263	956
Shellac, Orange chts, &c.	39,132	48,745	9,765	10,315	11,463	8,056
Garnet.. "	5,495	16,210	75	3,049	4,471	2,048
Button.. "	5,218	7,455	2,335	2,605	3,277	2,957
Total	49,846	72,410	12,175	15,965	19,211	13,061
Sticklac ..chts, &c.	2,763	4,055	10	658	322	430
Gambier .....tns	734	1,081	2,996	3,181	2,957	3,257
Cutch ..... "	2,131	3,530	209	2,104	680	1,833
Turmeric, Bengal tns	1,208	1,457	10	95	198	116
Madras, Cochin, &c. tns	888	1,444	53	6	323	308
Total	2,094	2,901	63	101	521	424
Vermilion, chts, &c.	17	22	56	71	58	61
Wax, bees' ..bls & srns	296	464	138	173	616	235
" cks & cs	820	1,328	680	1,359	819	1,170
" cakes	61	72	37	68	—	13
" Japan....pkgs	1,571	1,076	237	200	311	576

Memoranda for Correspondents.

Always send your proper name and address: we do not publish them unless you wish: if you do not, please use a distinctive nom-de-plume.

Write on one side of the paper only; and devote a separate piece of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers, please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Before writing for formulæ consult the last volume, if you have it.

Letters, queries, &c. will be attended to in the order received.

The Council Candidates.

We have received quite a number of letters from electors advocating or opposing the claims of certain candidates. As a rule these only express personal opinions, and we do not see that any good object would be served by publishing them. We have done our best to give a fair show to all the candidates, and cannot spare any more space at present for the discussion of their merits or demerits.

Chemists and Poisons.

SIR,—I wish to say a few words on the mistakes that I believe you have fallen into, in your article of this day's dates on the "Poisons trade."

In the first place, you make a slip with your pen when you state that tea may not be sold without a licence—that was abolished by the Chancellor of the Exchequer nearly twenty years ago, so that you are drawing correct conclusions from false premises.

With regard to your other quotations, viz., gin and tobacco, the vendors are licensed as dealers, but any neighbour may not vend any of their articles by a subterfuge, such as not announcing themselves as licensed victuallers or tobacconists, but seeking to trade under a *nom de plume* such as "spirit stores," "tobacco stores," &c.

Does it pay any chemist to sell (with all its responsibilities and attendant risk of coroner's inquests, actions at law, &c.) for a profit fee of five farthings?

Imagine a man being engaged shaving himself, or attending to some manufacturer in his neighbourhood with a view to obtaining a small contract, being called away to examine a threepenny customer as to the use of the poison, then making an entry in the poison-register, for a sum that I should give to the next organ-grinder that came in the street; also bear in mind that the transaction is confined to the sale of one article only, not on drapers' terms, where the $3\frac{3}{4}d.$ article has a profit of five farthings, and the customer takes a dozen or more yards, or like the milkman, who with a similar profit, executes the order for a pint of his sky blue night and morning, to say nothing about the pudding-milk at mid-day.

Our calling is the nearest approach to a profession, and it ought to carry semi-professional fees where the State interferes; any registrar of births and deaths receives from the Pharmaceutical Society (under the 11th section of the Poison Act, for sending a copy of the registration of the death of a chemist) a larger fee than five farthings.

So onerous is the responsibility imposed by the Act that a chemist, formerly in business at Hackney, told me he never made an entry of his sales, and to avoid detection he was not such a fool as to put his address label on, as required by law. An unqualified man in my district resorts to the same practice to avoid detection; so that the man who acts up to the law is placed at a great disadvantage with a poison customer, who generally retorts by saying, "Mr. So-and-So does not mess me about, and go through all this rigmarole." Another class of man says, "I will not be troubled with such a small matter, beset as it is with such tremendous responsibility; and I therefore refuse all sales of poison in Part 1 of Schedule A."

Our trade may well be a poor one when chemists are so foolish as to undertake responsibilities of such magnitude, and accept such a minimum profit for remuneration.

With you I should have thought that our unqualified rivals would have difficulty in carrying on the drug trade with poisons barred, if a store-mongering Lord Chancellor had not decided that corporations stood outside the Act, and thus directly led to the formation of bogus limited liability companies for the purpose of evading the Poison Act, and carrying on the trade of a chemist and druggist.

Yours faithfully,

ROBERT OWEN FITCH.

255 Wells Street, South Hackney, N.E.

SIR,—The decision of Mr. Justice Hawkins *re* the Pharmaceutical Society *v.* Wheedon, is contrary to my previously expressed opinions, but there is now no other course open than to "bow to the law," which is most plainly set forth as to the responsibilities of the seller of poisons. The sale of scheduled poisons being in law strictly limited to the qualified man, we have an opportunity of wresting from all other patent-medicine dealers the sales of many popular proprietary medicines. I would suggest, therefore, (1) That it be made compulsory on all manufacturers of proprietary articles, whether for internal or external use, to state the name of the poisonous ingredient, with the word "Poison," and that all chemists agree to charge full prices for the same. It is sheer madness for chemists to cut at each other when this branch of the trade is so unmistakably confined to them In accepting and carrying out the responsible duty imposed on us by the Legislature, we have a distinct right to expect fair remuneration from the public for our services, and by combining we may do much to bring about an amelioration in our condition that shall render it less difficult in the future to employ qualified men. (2) That the legality of the sale of sophisticated paregoric, laudanum, and similar preparations, be decided by a competent judge, and not by local magistrates, whose whims are as varied as the weather. (3) That we be compensated for our greater responsibilities by charging higher prices for poisonous preparations, as, *e g*, tr. opii, 8*d.*, vice 4*d.* or 6*d.* per oz.; paregoric, 6*d.*, vice 4*d.* per oz., &c. (4) That we make a charge of 1*d.* for each entry in poison-register, in addition to cost of poison sold. (5) That all regulations affecting sales of poisons apply equally to doctors who keep open shop, as to the selling, labelling, or registering.

Why cannot we get plumbi acet., liq. am. fort., acid. mur., and cupri sulph., included in Part 2 of the list of poisons? Let us also have the minimum age of the purchaser of poisons laid down by law, as at present we risk offending our customers, who frequently send notes by children under twelve years.

It is to be hoped that the Pharmaceutical Society will be up and doing, for in every town of any importance there is a grocer or store-keeper who has gained notoriety by his excessive cutting in patents. If our Society prevent these shopkeepers from selling preparations containing scheduled poisons, their renown will rapidly be a thing of the past, for the public will find they cannot get every patent medicine they want from them, but must go to the chemist.

Yours truly,

ATTRACTION. (43/49.)

SIR,—In order to meet the necessity of having proprietary articles containing poisons labelled "Poison," I am having labels printed: "In consequence of a recent legal decision this preparation must be labelled 'Poison,' but its composition remains unaltered"; which I hope will satisfy legal obligations, and yet not frighten customers.

What amount of poison must a "patent" contain to be considered a preparation of that poison? I have a cough-mixture containing 5 minims chlorodyne in 1 drachm. Has that to be labelled as containing chlorodyne? Again, my cough lozenges contain $\frac{1}{30}$ grain morphia. Are they a preparation of morphia? Pills containing, among other things, $\frac{1}{4}$ grain ext. nuc. vom.—have they to be labelled as containing nux vomica?

Again, another point. I have given strict orders that my apprentice shall not sell any poison while I may be out of the shop. Would it be illegal for him to sell a bottle of cough-mixture (own or Kaye's) containing, say, chlorodyne?

A solution of these difficulties would greatly oblige,

PERPLEXED. (44/10.)

[We are not prepared to say what proportion of poison constitutes a preparation of that poison, without any legal decision to guide us. Our correspondent will find some remarks on this and other associated difficulties in our articles on "Poisonous Patent Medicines," published on March 29 and April 5. If our correspondent cares for our extra-legal opinion, we may say that at present we should put some sort of poison label on the cough-mixture, but should not do so on the lozenges. We do not, however, assure him that in doing this he is legally safe. The cough-lozenges would be all the better for a label recommending care. As to the last point, it is clear that the unqualified apprentice cannot legally sell any article which is legally regarded as a poison.—ED.]

SIR,—We shall be glad if you will tell us whether, in reference to the Sale of Poisons Act, it is necessary to enter in the register sales, say, of cyanide of potassium to gilders, photographers, &c., to be *bonâ fide* used for their trade purposes—*i. e.*, do such sales come under the exemption of "sales by wholesale to retail dealers in the ordinary course of wholesale dealing"? There are plenty of other instances that might be subjects of this query, all of poisons sold to *bonâ fide* traders for use in their trade; but the above will, we think, cover all.

We also presume from the verdict obtained in the recent trial held in London *re* "Syrup of Camphor" that all preparations containing small quantities of scheduled poisons must be labelled poison. This is a very important matter, as it includes a large number of the nostrums of a druggist, such as cough-mixtures, diarrhœa-mixtures, tic and anti-spasmodic drops, and a host of others. We frequently use the appended labels, but consider it would be very detrimental to trade if used in all such cases.

Yours respectfully,

May 5. PERPLEXED. (46/51.)

The labels referred to above are the following:—

> IN CONFORMITY WITH THE SALE OF POISONS ACT, 1868, THIS PREPARATION MUST BE LABELLED
>
> POISON,
>
> BUT ITS COMPOSITION REMAINS UNALTERED.

Or—

> THIS PREPARATION containing, as most of such medicines do, small quantities of medicinal ingredients, which have now to be labelled Poison, in whatever amount they are issued, attention is drawn to this fact, and to the desirability of adhering to the prescribed doses.

[The exemption of "the business of wholesale dealers in supplying poisons in the ordinary course of wholesale dealing" applies to the first 15 sections of the Act only; that is, others than registered chemists may sell in this way. But the regulations about registration of sales, labelling, &c., apply, as the 17th section expressly states, to the sale of "any poison, either by wholesale or retail," by whomsoever sold. The labels should be applied to all the preparations named if they come within the definition of a poison.—ED.]

SIR,—The result of the recent appeal in the case of "The Pharmaceutical Society *v.* Wheeldon" will make chemists generally anxious to know what is to be the action of the Society with respect to their responsibility towards the Government in enforcing the conditions of the Pharmacy Act. Granted that in future they fulfil the obligations which are now seen to be expressly imposed upon them in the terms of the Act, they will greatly increase their unpopularity with the members of the trade, but at the same time gain the support of the qualified assistants. To speak of the latter first, if it be rendered impracticable for an unqualified man to dispense poisons in any way, then as he can only handle a part of the goods in which a chemist deals, he will be, as compared with one who is qualified, in a very inferior position, and in the case of those places where only one assistant is kept, the qualified man will be the only one eligible for such a post. Seeing that the number of qualified men (not in business on their own account) is not sufficient to meet that demand, their services will be at a premium, and it will be a case on the part of the assistants of accepting the highest salary offered, other circumstances being equal. This increase of salary, and the status which they would consequently obtain in the trade, would go a long way towards recompensing them for the trouble, time, and money spent in passing the qualifying examination.

As to chemists in business, and particularly those who keep only apprentices or one assistant, the case will be far different. Either they will have to remain at their places of business from morning till night, and from year's end to year's end, or engage a qualified assistant at a salary which perhaps may leave the margin of profit barely sufficient for daily wants (that is, reckoning the increased pay which I have shown qualified men may probably demand and obtain). Unless the law be evaded in some way, there is no alternative; and there can be but two endings to such a state of things—viz., the asylum or the workhouse. In large towns we should soon find small chemists' shops closed, and business done entirely at large establishments, where the new working of the law would make no difference.

Whether it would be an advantage to the public in the end to reduce the number of chemists' shops and increase their size may be questioned, but there is no doubt that the former would be a great inconvenience, and the public would most assuredly have something to say with regard to such a change, which, if the law with its new-found interpretation be enforced, will sooner or later take place. If, instead of regulating the hours of business, the Government would stipulate a certain reasonable number of hours during which poisons may legally be sold (excepting, of course, such as are ordered on a *bonâ-fide* physician's prescription), the present case would be met, and relieve many a chemist from what is practically slavery.

Yours truly,

REASON. (45/27.)

SIR,—I cannot but think that the recent decision in the Court of Queen's Bench will be an ultimate benefit to chemists. It ought not to be a matter of surprise to the unqualified that he is debarred from situations where he would be left in sole charge, and it ought to be an incentive to him to qualify, so that he may improve his position in every way.

It seems to me now that immediately following on this, or as soon as can be arranged, a number of leading proprietary articles should be purchased. These should then be analysed, and the proprietors of as many as contain any of the scheduled poisons should be warned that in future their preparations must be labelled "Poison," with the name of the poison they contain.

Then grocers and other unqualified persons, who, after being warned, persist in selling these preparations, must be proceeded against.

As regards cost of analysing, legal expenses, &c., if necessary, a fund could be started to which the bulk of chemists would gladly subscribe.

I am, Sir, yours faithfully,

Tottenham. J. E. EASTMAN.

"Going through the Minor."

SIR,—There is a very prevalent idea amongst chemists everywhere that the Minor examination is an unfair one. The account which "L. F. M." gives in your journal of last week tends to confirm that opinion. I have known young fellows do considerably better in the examination-room than "L. F. M." has done, and they were plucked. With regard to the examiners preferring passing to plucking, I think it is the exception, and not the rule, when they show such leniency as they appear to have done with "L. F. M."

In prescriptions, he says, it would be tedious to relate all the blunders he made in gender, number, and case. I should not think that he knew much about the translation of Latin,

f what he gives is a specimen. I hope the examiner will he . n as good a humour when I go in, if I find I cannot do any better than "L. F. M."

It is a wonder Mr. Gale was not more than shocked when he was told that $Bi + 3HNO_3$ generated H_2. What do your readers think of a man getting through who has never used a blowpipe, and does not know what an aneroid barometer is? After this, I shall have no fear whatever of passing my examination. I am yours,

ANEROID BAROMETER. (46/35.)

LEGAL QUERIES.

42/9. *J. A C.* sees a difficulty about the seller of poisons in that, according to section 15, his qualified assistant may become the seller, while section 17 requires that the seller shall put his name and address on every packet of poison sold. He overlooks the provision that for the purposes of the 17th section the seller is to he deemed to be the person on whose behalf the sales are made.

42/12. *Nemo.*—The titles can he legally assumed.

43/57. *Ben Nevis.*—We do not clearly make out from your statement what you want to know. A cannot be compelled to give to Jones the formula of some medicine which A's predecessor was in the habit of preparing for Jones's father. If the compound is not patented, A can put it together and sell it to anyone. But Jones could most likely prevent him hy injunction from selling it as his (Jones's) mixture.

44/38. *F. D.*—You do not seem to appreciate the distinction between the 15th and 17th sections of the Act. The defendant in the recent case was prosecuted under the 15th section because he, an unqualified person, did sell a scheduled poison. If the charge had been one of insufficient labelling, proceedings must have been taken, if at all, against the employer under the 17th section.

44/26. *Doubtful* says:—"I have a very good pair of standard scales for the counter, with box and beam. Finding that the pan was not large enough, I got the man who attends to my weights and scales every three months to furnish a larger one. This, of course, weighed a good deal heavier, and in order to 'strike a halance' he has soldered on a piece of lead to the weight-pan. They are true to a hair, but I wish to be certain if this would be objected to by the inspector in case he paid me a visit? Man says no." If your County Council adopt the Model Regulations suggested by the Board of Trade, as they no doubt will, your scales will most likely he allowed to pass if the correction has been done in a workmanlike manner. Regulation 1 provides that any weight, measure, or weighing instrument found by the inspector to be in use for trade before January 1, 1891, may continue to be used, and may be stamped if found to be correct, and not constructed in such a manner as to facilitate the commission of fraud.

44/4. *Pro Bono Publico.*—You might have a legal claim against your assistant for leaving you hefore his full month expires, but that would depend on the exact terms of the agreement, modified by what you admit having said to him. Your reasonable course will be to pay him up to the date of his leaving.

44/37. *J. S.*—There are no legal restrictions on the sale of sulphuric or hydrochloric acids.

44/22. *G. H. P.*—The proprietor of a patent medicine might have a cause of action if you maliciously or recklessly described his preparation as poison; hut you would have a fair ground of defence if you could show that you did it with a good motive and on reasonahle grounds. The landlord can distrain on stock and fittings.

45/24. *Lucie.*—It would seem that a doctor's assistant could not be proceeded against under the 15th section of the Pharmacy Act. The 16th section of the 1868 Pharmacy Act says: "Nothing hereinbefore contained shall extend to or interfere with the business of any legally qualified apothecary"; and the 1st section of the 1869 Act declares that "nothing contained in the first fifteen sections of the [previous] Act shall affect any legally qualified medical practitioner." It might be held that the prosecution of the unqualified assistant to a doctor was not a matter which legally affected the qualified medical practitioner, but we are inclined to think that the defence would be valid—at least in the case of the apothecary with whose business such a prosecution would undoubtedly interfere. Whether it is a part of his legitimate business to employ an unqualified assistant to sell poisons is a question which we should think could not be decided under the Pharmacy Act.

45/23. *P. J.*—The indenture stamp is 2*s.* 6*d.*

45/40. *Hesitation* writes: "A person huys a business. Amongst the stock he finds a properly-patented medicine. of which in the agreement no cognisance has been taken. What is the huyer's position in regard to it? Is he liable in any way if he should sell such stock?"

[He may sell the stock he has hought, of course; and it may be that the agreement is wide enough to allow him to continue to manufacture and sell the article. If not, his purchase of the business gives him no possession in the other property (including this patent) owned by the vendor.]

MISCELLANEOUS INQUIRIES.

36/57. *Pax* (Paris).—(1) The conditions of cheapness and exclusiveness which you lay down for the preparation of the essence of violet are too stringent. You must employ natural products for the distinctive odour, and these are not cheap. (2) Impossible.

41/14. *Mag. Sulph.*—Follow the application of the silver nitrate solution with a weak solution of ammonium sulphydrate, which ensures that the colour will be a dark brown.

41/58. *Cedar* makes an **Iron and Quinine Tonic** according to the following formula:—

Quinine sulphatis	gr. xl.
Liquor. ferri perchlor.	ʒj.
Syrupi simplicis	℥j.
Chloroformi	♏xx.
Infusi quassiæ (double strength) ad ..	℥xx.

He finds great difficulty in getting the mixture clear; this is owing to the quassia infusion, which is an obstinate thing to brighten. The hest way to treat it is to shake with a few drachms of carbonate of magnesia, and half an ounce of kaolin to the pint, then filter, and repeat the process if necessary. Dissolve the quinine in the liquor ferri and a drachm of dilute hydrochloric acid.

41/41. *Lilac.*—"The Brewer, Distiller, and Wine Manufacturer" (Churchill, 6*s.* 6*d.*).

41/34. *Sigma.*—Judge your sample of **Insect-powder** by its effects upon insects. The colour is hright, but most of the insect-powder sold in this country is faced with turmeric or similar colouring matter, which the custom of the trade demands. Genuine insect-powder should yield not less than 6 per cent. and not more than 7 per cent. of a white ash.

42/5. *D. E. J.*—The fixing of knives into xylonite handles is a secret known to the trade in your district, but which we do not know. Cannot you find out? We should think that shellac, with 5 per cent. of borax added, would be preferable to resin and sulphur.

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Amylaceous Pepsine, C/C, French Pharmacopœia	20	11/	"
Amylaceous Pepsine,	6	4/9	"
Pure Pepsine in Scales, C/C	100	49/5	"
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Experimental Research as to the General Comparative Action of the Natural and Artificial Salicylic Acids, and their Salts of Sodium. Read in the Section of Pharmacology and Therapeutics at the Annual Meeting of the British Medical Association held in Leeds, August, 1889. By M. CHARTERIS, M.D., Professor of Therapeutics in the University of Glasgow, and W. MACLENNAN, M.B., C.M.

See *BRITISH MEDICAL JOURNAL*, Nov. 30, 1889.

The deductions from these experiments indicate that artificial salicylic acid and its salt of sodium are dangerous and, in large doses, fatal to animals, while salicin, natural salicylic acid, and its salts of sodium are not. That artificial salicylic acid contains an impurity or impurities, and until this or these can be extracted by the aid of chemistry the internal administration of it or its salts of sodium should be discountenanced. Large and repeated doses of the sodium salt are necessary in the treatment of acute rheumatism, and hence we may account for the restlessness, the confusion, and the delirium sometimes attendant on its use, which have been testified by clinical experience. It is more than probable, too, that the retarded convalescence occurring in some cases of acute rheumatism after the salicylate treatment is due to the great and protracted prostration which the impurity or impurities give rise to. It is to be remembered in connection with these symptoms that prescriptions of the salicylate of sodium are invariably made up, unless otherwise indicated, from the artificial and not the natural salt.

The specimens with which the investigations were carried on were supplied by T. MORSON & SON, London—the Natural Acid and its Soda Salt being manufactured by themselves.

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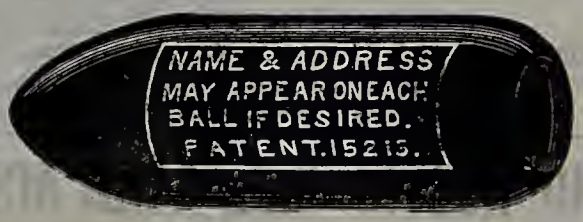

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" " ..... 3 gr.	7/6	26/
" " ..... 4 gr.	9/6	34/
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" Sulphate ..... $\frac{1}{2}$, $\frac{1}{2}$ gr.	5/	16/
" " ..... 1 gr.	5/	16/
" " ..... 2 gr.	6/	20/
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BE CAREFUL OF YOUR MENTHOL CONES.

1st.—**Avoid Loss** by the Cones melting, and do not expose them to the sun.

2nd.—**Avoid Loss of Sales,** caused by not being able to show the goods, when by ordering 25/- worth of Cones you obtain **free** one of

"SHIRLEY'S LITTLE CRIERS,"

which, being made of China, will stand any heat, and take the place of the Cones, these thus being able to be kept in the cool.

It is a fact that **Menthol Cones** sell as readily in the Summer as the Winter, for Nervous Headaches, Faintness, Weariness, and so forth, so be advised and order one of the A1 Special Parcels.
One figure is given free with 25/- order, or TWO if a 40/- order is placed.

Parcel 1, 25/. 4 doz. 7*d*., 1 doz. 3*d*., 2 doz. 3½*d*., 3 doz. 4*d*., 2 doz. 6*d*.
Parcel 2, 25/. 4 doz. 6*d*., 2 doz. 4*d*., 1 doz. 1*s*.
Parcel 3, 25/. 3 doz. 3*d*., 2 doz. 1*s*., 1 doz. 4*d*.
Parcel 4, 25/. 1 doz. 9*d*., 2½ doz. 1*s*., ½ doz. 1*s*. 6*d*.
Parcel 5, 40/. 4 doz. 2*d*., 2 doz. 3*d*., 3 doz. 3½*d*., 5 doz. 4*d*., 4 doz. 6*d*.
Parcel 6, 40/. 5 doz. 8*d*., 3 doz. 4*d*., 2½ doz. 1*s*.
Parcel 7, 40/. 4 doz. 6*d*. 4 doz. 4*d*., 1 doz. 9*d*., 2 doz. 1*s*.
Parcel 8, 40/. 4 doz. 1*s*., 2 doz. 9*d*., ½ doz. 1*s*. 6*d*.

No. 17F.—Very flat, Boxwood shape, suitable for pocket..... 5/- doz
No. 17D.—Ditto, flat case, pretty shape ..... 3/6 „
No. 33—Glass shade on enamelled pedestal.... 2/9 „
No. 20.—*Export Line.*—Cone fixed in stopper of well stoppered bottles, suitable for hot climates 7/- „

No. 110.—1*d*. Bottle shape .. 3 dcz. on card, 6/6 gross
„ 110V.—1*d*. Vase „ .. „ „ 7/- „
„ 110PV.—1*d*. Pedestal „ .. „ „ 7/- „
„ 110R.—1*d*. Reversible shape „ „ 7/- „
„ *114.—2*d*. Pedestal shape, 3 doz. on card ..... 1/4 doz. .. 14/- „
„ *115.—3*d*. Draughtsman shape, 2 dcz. on card ..... 1/8 doz. .. 18/- „
„ *2B.—3*d*. Barrel shape, 3 doz. on card 1/8 doz. .. 17/- „

* These Patterns are varnished.

☞ SPECIAL QUOTATIONS TO LARGE BUYERS.

No. 110V.

BE READY FOR THE HOT WEATHER

AND LAY IN YOUR STOCK OF

SMELLING BOTTLES AND SALTS.

A NEW LINE.—"A1" "EVER-FRESH" SALTS.

These Salts are the most inexhaustible it is possible to produce. They are ready scented, and can be put into the bottles without addition, or, if preferred, a few drops of ammonia may be added.

2/2 per lb., bottle free.

Nos. 188-9.

Nos. 188-9.
Peacock Blue, Globe Stoppered English Bottles, neatly put up, and filled with A 1 "Ever-Fresh" Salts,
No. 188, 6*d*., 1 doz. in box, 3/9 doz., 40/- gross.
No. 189, 1*s*., ½ doz. in box, 7/- doz., 72/- gross.

No. 186.

No. 186.
China Bottles, prettily decorated, fitted with China and Cork Stopper, making one of the prettiest articles ever offered for sale.
Filled with A1 "Ever-Fresh" Salts,
3/6 doz., 36/- gross.

Nos. 168-9.

Nos. 168-9.
Wonderful Value.
Well Cut and Stoppered, empty, 3/6 doz., 39/- gross.
Filled with "Ever-Fresh" Salts,
4/- doz., 45/- gross.
1 dozen in hinged outer.

☞ Over 200 Patterns of Cut-glass and China Bottles to choose from. Before buying, please order a sample dozen assorted, or send for List, or call and inspect samples, and then compare prices with any house in the Trade. ☜

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COOK'S ANTISEPTIC SOAP

(THOMSON'S PATENT),

Has been tested in a Physiological Laboratory as a Germ Destroyer, and proved to be more efficient than any other experimented with. (*See* "Journal of Chemical Industry, 1888, No. 3.) Of great value in CASES OF

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AND OTHER SKIN DISEASES.

See "The Lancet," 12 May, 1888, page 936.

Price in 3-Tablet Boxes, per doz. **12/-**; Selling Price, **1/6**; in ¼-gross Boxes, **10/6** per box.

GOLD MEDAL, PARIS EXHIBITION, 1889.

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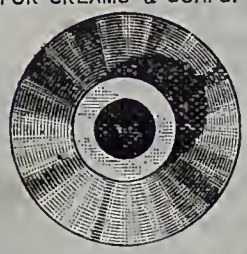
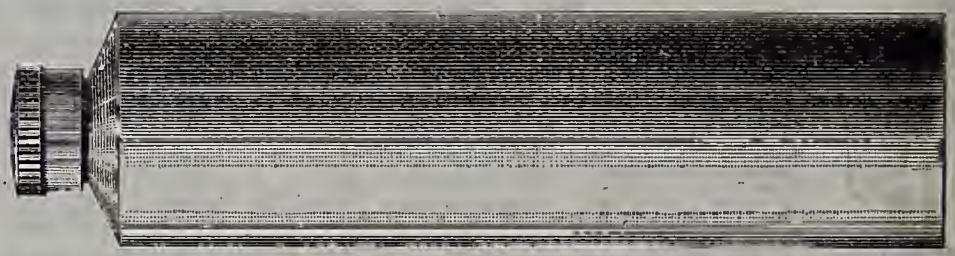
FOR CREAMS & SOAPS.





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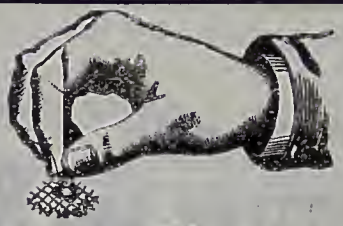
Trade Mark.  Registered.

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SOLE AGENTS FOR DR. WARLOMONT'S CALF VACCINE.

Tubes, 2s. each; Half Tubes, 1s. each. Pomade in vials, 5s.

HUMAN VACCINE, from healthy children only, microscopically examined and source noted. Tubes, two-thirds full, 1s. 8d. each; Tubes one-third full and Lancet-charged points, 1s. each; Pin-points, 1s. 1d. each. Eighteen charged Small Points, 5s. Tubes, two-thirds full (same as those mentioned above, but without source), in quantities for export, £5 per 100 Tubes. Pin-points uncharged, 1s. per dozen. Vaccine Ejectors, 1s. 3d. each, including postage. Vaccinations by appointment. P.O.O.'s (including postage, and crossed London and Westminster Bank) with orders, payable to EDWARD DARKE *Secretary.*

Office hours, 10 to 4. Saturdays 10 to 2.

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ESTABLISHED A.D. 1846.

Please see that YOUNG'S goods are supplied, as there are many worthless imitations.

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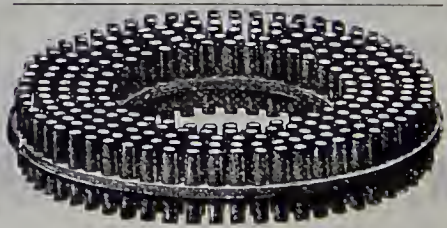

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The Latest Novelty is our

RUBBER

Complexion Brush.

Price 3s. 6d. each,

PACKED IN A NEAT BOX.

Entirely does away with poisonous cosmetics and face-washers. Used in the ordinary daily ablutions, with a little soap, it makes the skin beautifully fresh, soft, and smooth, and effectually eradicates all blemishes, blotches, pimples, &c. Used as a shampoo brush, gentlemen will find it a most useful adjunct to the toilet, as it entirely removes scurf and dandruff. Mothers and nurses will find it invaluable for bathing the delicate skin of infants and children.

Prices—Bath Brushes 5s; Toilet Brushes, with Handles, 1s. & 2s. each; Tooth Brushes, 10d. & 1s.

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Is perfectly tasteless, and so constructed that the flat-ended teeth serve to expand the skin of the gums, softening the latter, and aiding the coming tooth without irritation. Price 5d.

Of all Chemists & Dealers in Toilet Goods or direct from the Manufacturers,

DAVID MOSELEY & SONS,

14 Aldermanbury Avenue, London, E.C.; Manchester; Glasgow; Brussels and Paris.

MANUFACTORY.
"Eclipse" Glass Works,
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Prize Medal, Adelaide Exhibition, 1887.
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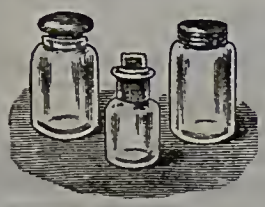
E. A. HEARN & CO.

WHOLESALE AND EXPORT GLASS BOTTLE MANUFACTURERS.



Makers of EVERY DESCRIPTION of Glass Bottles, either PLAIN or STOPPERED, in
WHITE FLINT, AMBER, BLUE, MEDICAL GREEN, ACTINIC GREEN, &c., &c.
OR ANY COLOUR MADE TO ORDER.

FEEDING BOTTLES IN ALL SHAPES,
PLAIN NECKS OR SCREW STOPPERED.
SPECIALITY.—First-class Quality at Reasonable Prices.

GLASS BOTTLES

OF THE BEST QUALITY.

DISPENSING, PICKLE, SAUCE, OIL, MINERAL WATERS, &c., &c.

SAMPLES AND PRICES ON APPLICATION.

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BY SPECIAL APPOINTMENT TO
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BOURNE WATERS.

THE PUREST IN ENGLAND.

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MANUFACTURERS OF

SODA, POTASH, LITHIA, AND SELTZER WATERS,
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4-dozen and 6-dozen Cases Carriage Paid.

Special attention is invited to our manufacture of

LITHIA WATER.

Each Bottle contains an average dose of Carbonate of Lithia—the recognised Specific for Gout.

THE LATEST SPECIALITY—the Celebrated Artesian Bourne Water in Pints and Quarts for Table Use.

Prices and Pamphlet on application. *Agents appointed.*

Messrs. INGRAM & ROYLE, 52 Farringdon Street, Wholesale Agents for the sale of our Waters.

ESTABLISHED 1833.

HORSES.—LIEUT. JAMES'S BLISTER.

CAUTION.

The annexed Label is at the top of every Pot of the *ORIGINAL* and only *GENUINE BLISTER.*

The Messrs. Barclay & Sons, 95 Farringdon Street, London, and Messrs. Raimes & Co., Edinburgh, are now and have been Agents 57 years.

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And by all Chemists, in Pots, 1/6, 2/9, 5/, 9/, and 16/.

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Advertised in "Bell's Life" 54 years. Beware of Spurious Imitations.

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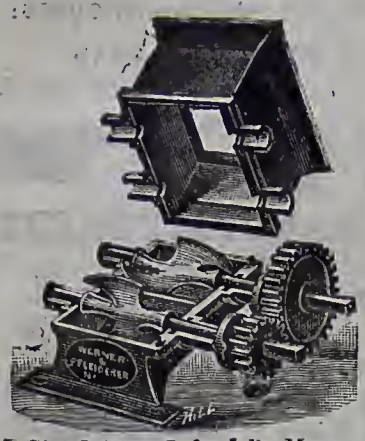

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KNEADING AND MIXING MACHINE

FOR

PILL MASS MAKING,

ALSO FOR

Horse Balls, Tooth Pastes, Ointments, Soaps, Powders, and for general Mixing and Incorporating.

REPLACES WITH ADVANTAGE ALL OTHER APPLIANCES FOR THESE PURPOSES.

Made in various sizes, to do from ½ lb. up to 1 ton at a time.

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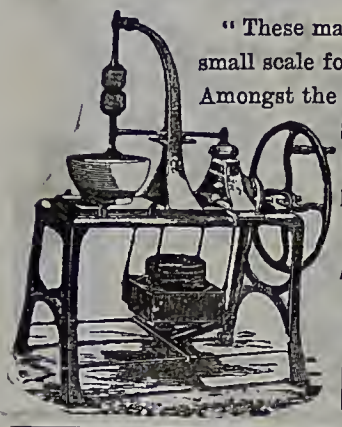

"These machines have for many years proved most serviceable on a large and small scale for Grinding, Levigating, and Mixing Powders, Pill Masses, Paints, &c." Amongst the articles which are readily ground by it may be mentioned Ginger, Seeds, Salts of all kinds, Cream of Tartar, Sugar, Cocoa, Pepper, Spice, Jalap, Rhubarb, Gums, Aloes, Barks, &c.; and for mixing or kneading Lozenges, Pill Masses, Glaziers' Putty, Bread, Biscuits, &c.

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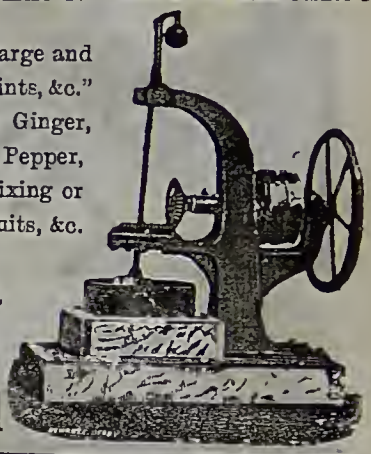

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NEW CAPSULING MACHINE

The only Machine which leaves no crease or pleat on the Capsule.

Can be fixed to any Counter. A single pull of the lever is sufficient to fix the Capsule.

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BEFORE ORDERING

Of any other House, please write for Prices of any size required to either of our Warehouses—

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ESTABLISHED UPWARDS OF 50 YEARS.

Export Orders to our City Establishment.

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GARDNER'S

PATENT COMBINED

'RAPID' SIFTER & MIXER,

FOR HAND OR POWER.

Reduces lumpy powders, sifts and mixes faster, and makes a more perfect blend than any Machine in the Market.

Send for full particulars to

WM. GARDNER,

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Capacities, from 15 to 300 lbs. at one mixing.

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"INTERNATIONAL" FEEDING BOTTLES.

We are Sole Makers of this well-known Registered Series.

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FOR ALL PROPRIETARY ARTICLES.

HAND-MADE SHOP ROUNDS, SHOW CARBOYS, JARS, AND POTS.

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EVERY CLASS AND DESCRIPTION, PLAIN AND STOPPERED.

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POMADES, HONEY JARS, AND POTS.

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BALL STOPPERED, CORK MOUTH, &c.

VAN BOXES. RAIL CASES. FACTORY CRATES.

Cordial, Liqueur, & Beverage Bottles

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PLEASE NOTE.

We guarantee our **S.V.R.** to stand the Nitrate of Silver and the Ammonia tests, and to be entirely free from the offensive odour which usually characterises low-price spirits.

Pure Grain Spirit B.P., 56 o.p., 19/3 per gallon.
" " Double Distilled, " 19/7 "
CASH WITH ORDER.

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SPECIALITY FOR PERFUMERY.

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And "the thousand ills which flesh is heir to."

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Antidote on the bottle—sure to kill all Bugs upon two applications.

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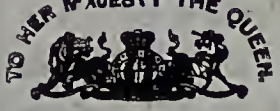

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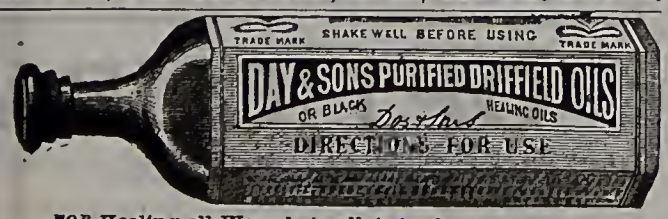

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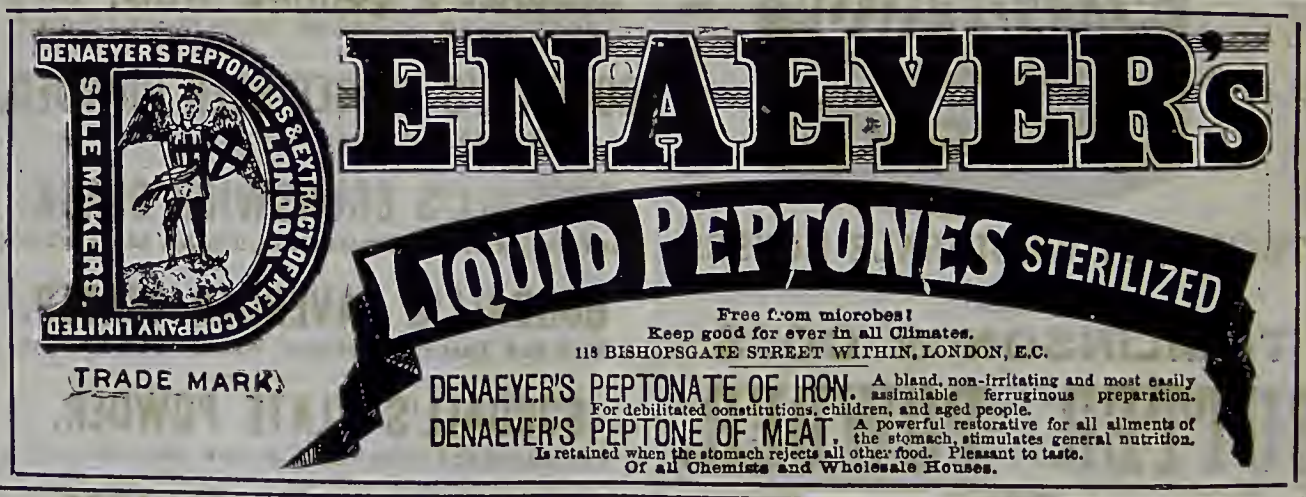

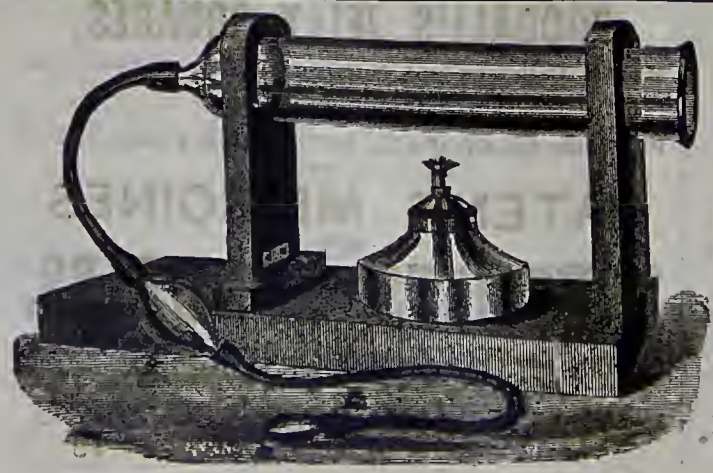

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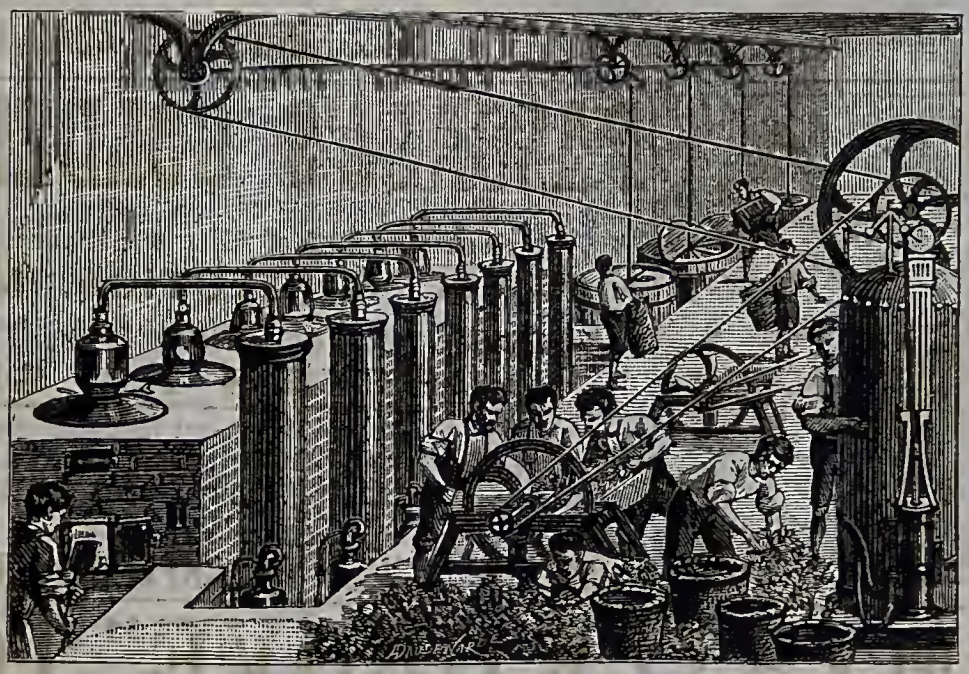

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